Statutory Plans

The following statutory plans are attached as Annexures to the final compliance document:

STATUTORY PLANS	
IDP Process Plan	Annexure A
STAKEHOLDER INVOLVEMENT o Public participation process (Public involvement Summary) 29 (b)(ii) o Public participation Framework	Annexure B
Spatial Development Framework for the City	Annexure C
Land Reform Plan	Annexure D
Disaster Management Plan 26 (g)	Annexure E
Water Services Development Plan • Water Demand Management Plan	Annexure F (Executive summary included) Only Hard copy of the latest draft of the WSDP received
Municipal Police Plan • Municipal Safety Plan	Annexure G
Health Plans • Environmental health plan (Air quality) • HIV/AIDS/TB Plan for the City • District Health Plan	Annexure H H1 H2 H3
City Partnership Strategy	Annexure I
Human Resources Strategy o Institutional development, transformation and re-alignment plan for the City Of Cape Town	Annexure J
Corporate Scorecard and definitions	Annexure K
Economic development Plan o Development priorities and objectives for the elected term 26 © o Local economic development aims 26 (c) o Internal transformation needs 26 (c) o Development strategies which are aligned with national or provincial sectoral plans 26 (d) o Local economic development strategy o Business Investment strategy of Council (Reg 2(1)(b))	Annexure L (PDF Annexure)
Annual Report	Annexure M (PDF Annexure)
Public Transport plan	Annexure N (Hard Copy Received)
Integrated Transport Plan.	Annexure O (Hard Copy received)
State of the City Report	Annexure P (PDF Annexure)
Sustainability Report (State of the Environment)	Annexure Q
Integrated Waste Management Plan	Annexure R (PDF Annexure)

Annexure A:
IDP/BUDGET TERM OF OFFICE PROCESS PLAN : 2007/2008 FINANCIAL YEAR

	IDP TERM OF OFFICE PLAN	Activity	Legislative Requirement and Information	Timeframe	Responsible Department
1	Process Plan	Drafting a process plan for the compilation of the 2007/08 IDP and budget. The process plan is a time schedule outlining key deadlines for preparing, tabling, approving and reviewing the IDP and budget (s 28 and 29 of MSA) and budget related policies and consultation processes at least 10 months before the start of the budget year.	MSA s 28, 29	11 – 17 May 2006	IDP
		Consult and agree with Budget and OPMS on the draft process plan		18 May 2006	IDP/BUDGET/OPMS
		Consult and agree with Ikhwezi		30 May 2006	IDP
		Consult and agree with the Support Directors on the draft process plan		6 June 2006	IDP
		Consultations with 21 Subcouncils	MSA Ch 4	9 – 22 June 2006	IDP/PEU
		Place advertisements in media and strategic public places to ask the public to comment on the process plan		1 July – 31 July 2006	IDP/PEU
		Consultations with business and private sectors		22 – 31 July 2006	IDP/PEU
		Consult and agree with Intergovernmental Task Team		22 – 31 July 2006	IDP
		Public Participation on draft process plan, feedback on 2005/6 IDP, Proposed 2006/2007 Budget and process for identification of needs.	MSA Ch 4	22 – 31 July 2006	IDP/PEU
		Process plan to be considered at Portfolio and IDP Ad Hoc Committees		1 – 4 August 2006	IDP
		Process plan to be considered at Mayco		21 August 2006	IDP
		Process plan to be adopted by Council	MFMA s 21, 23, 23 MSA s 34 ch 4 as amended	31 August 2006	IDP
2	Strategic Analysis Report	Compile an Analysis Report in preparation for determining the strategic priorities and for inclusion in the IDP	Conduct an opinion survey, strategic analysis and review to determine the status of socio-economics, financial, environmental, census data, levels of need and levels of service.	31 August 2006	IKM
3	Infrastructure Backlogs Grid	Development of Infrastructural Maintenance backlog grid		31 August 2006	SERVICES & INFRASTRUCTURE

4	Community-based Planning	Training of Subcouncils/Ward Committees and officials on Community-based Planning. Needs identification process with the community	DPLG Directive	1 – 31 August 2006	IDP/PEU/SUB COUNCILS
5	IDP Marketing and Awareness Campaign	Marketing and Awareness of the IDP internally and externally to improve understanding and increase the level of public participation.	Launch of DVD, Open Day, Roadshows, Illustrative Booklet, Media campaigns, Exhibitions	1 – 31 August 2006	IDP/PEU/COM MUNICATION S/EVENTS
6	Strategic goals and objectives and prioritisation	Briefing on the Analysis and determine strategic objectives and priorities for service delivery and development for the term of office as well as development of 3 year budgets including the review of national and provincial government sector and strategic plans	2 x 1-day workshops with Mayco and Top Management to develop vision, values, strategic objectives, targets and strategic themes.	29 September 2006	IDP/BUDGET S/OPMS/PEU/ STRAT & DEVT
7	MTIEF and Revenue projections	Budget office develop MTIEF and determines revenue projections and proposed rate and service charges and draft initial allocations to functions and dept's for the next financial year after taking into account strategic objectives.	MFMA s 21, 22, 23	29 September 2006	BUDGETS
8	Community Based Plans	Subcouncils to develop subcouncil/ward plans for IDP		29 September 2006	IDP/PEU
9	Spatial Plans	Development of Spatial Plans		29 September 2006	STRAT & DEV
10	Political Consultation	Consult political structures on political priorities and needs at decentralized level		29 September 2006	IDP/PEU
11	Inter-governmental Alignment	Workshop with the Integrated Intergovernmental Development Task Team to align local, provincial and national strategies.		15 – 31 October 2006 (20 Oct 06)	IDP
12	IDP Stakeholder Engagement	Ward Committees and Sector organisations to participate in the prioritisation of Council initiatives at Ward, Sub-Council and City-wide level. Use MTIEF guidelines to ID affordability. Ward allocation priorities to be finalized. Projects already identified at local level.	Prioritized lists of project proposals at ward, Sub-Council and City-wide level	1 - 31 October 2006	IDP/PEU
13	Hi-Level Business Plans	Directorates submit hi-level business plans		31 October 2006	IDP/ DIRECTORAT ES
14	Alignment	Engage with provincial and national sector departments (*Service level agreements and unfunded mandates legalize*) and district and local municipalities on sector specific programmes for alignment with City plans.	(Schools, libraries, clinics, water, electricity, roads etc)	31 October 2006	IDP/IGIDTT
15	Corporate Scorecard	Development of a Corporate Scorecard for the organization	Ch 6 – MSA	31 October 2006	OPMS
16	Municipal Entities	Briefing to municipal entities on drafting of strategic plans and budgets.		31 October 2006	IDP/BUDGET S

17	National policy review	Accounting officer does initial review of national policies and budget plans and potential price increases with function and department officials.	MFMA s 35, 36, 42, MTBPS	31 October 2006	BUDGETS
18	1st Draft IDP	Completion of the 1st draft of the IDP and capital budget. Draft BSCs and SDBIPs per programme, directorate and department.	1st draft term of office IDP MSA s 34	31 October 2006	IDP
19	Business Plans & SDBIP	All Departments submit departmental business plans and SDBIPs		15 November 2006	IDP/DEPARTMENTS
20	Draft IDP and Capital budgets	Submit draft IDP and Capital budgets to Ikhwezi, Mayco and Council.	MFMA	29 November 2006	IDP/BUDGETS
21	Tariff policy	Council finalizes tariff (rate and service charges) policies for the next financial year	MSA s 74, 75	12 December 2006	BUDGETS
22	Briefing to Municipal entities on IDP	Municipal entities to align their budgets and plans with City IDP	MFMA 87(5) (d)(ii)	29 December 2006	IDP
23	Draft Operating budget	Submit draft Operating budget to Ikhwezi, Mayco and Council	MFMA	31 January 2006	BUDGETS
24	Municipal entity Budgets	Entity board of directors must approve and submit proposed budget and plans for the next 3 years budgets to the City at least 150 days before the start of the financial year	MFMA s 87(1)	31 January 2007	IDP/BUDGETS
25	Allocations	Review proposed national and provincial allocations to the City for incorporation into the draft budget for tabling (Provincial and national allocation for 3 years must be available by 20 January)	MFMA s 36	31 January 2007	BUDGETS
26	Municipal entity business plans and draft budgets	Council considers municipal entity proposed budget and plans for the next 3 years	MFMA s 87(2)	28 February 2007	IDP/BUDGETS
27	Proposed budgets and plans	Accounting officer finalizes and submits to Mayor proposed budgets and plans for next 3 year budgets taking into account mid-year review and any corrective measures proposed as part of the oversight report for the previous years audited financial statements and annual report		28 February 2007	BUDGETS
28	Draft SDBIP's	BSC & SDBIPs to Executive Directors		28 February 2007	IDP
29	Entity budget revisions	Entity Board of directors considers recommendations of the City and submit revised budget by the 22nd of month	MFMA s 87 (2)	22 March 2007	BUDGETS
30	Budget and IDP Final Drafts	Mayor tables municipality draft budget, budgets of entities, resolutions, plans and proposed revisions to IDP at least 90 days before the start of the financial year	MFMA s 16, 22, 23, 87. MSA s34	31 March 2007	IDP/BUDGETS
31	Annual Report	Tabling of Annual report to Council	MSA	31 March 2007	BUDGETS/OPMS

32	Consultation on Draft IDP and Budget 2007/2008	Advertise and publish final draft of IDP and Budget for 21 days for public comment and submit to National and Provincial Treasury and others as prescribed	MFMA s 37 (2) Mayor to be provided with assistance to revise budget documentation in accordance to consultative processes and taking into account results from the 3rd quarterly review of the current year	1 - 21 April 2007	IDP/BUDGETS/PEU
		Consulting Ward Committees, Sub-Council and City-wide forums such as business, private sector and other municipalities on the 1st draft of IDP, targets, KPIs and 3 year financial plans.	Public comments and recommendations	1 – 21 April 2007	IDP/BUDGETS/PEU
		Conduct IDP/Budget Public Hearings to obtain public comment and inputs from communities, national, provincial government and other municipalities. Announce cut-off dates.	Public inputs. MFMA s 21	1 – 21 April 2007	IDP/BUDGETS/PEU
		Consultation with Mayco, portfolio committees, sub-councils and public forums on the final draft of IDP and Budget	Comments and recommendations	30 April 2007	IDP/BUDGETS/PEU
		Consultation with national and provincial treasuries and finalize sector plans for water, sanitation, electricity, etc.	Mayor to be provided with an opportunity to respond to submissions during consultation and table amendments for Council consideration. MFMA s 23, 24 MSA Ch 4 as amended	1 – 15 May 2007	IDP/PEU
33	Municipal entity budgets	Entity Board of Directors to approve the budget of the entity not later than 30 days before the start of the financial year taking into account any hearings or recommendations of the council of the parent municipality	MFMA s 87	31 May 2007	IDP/BUDGETS
34	Budget and IDP approval	Council must give final approval of the IDP & Budget document by resolution, setting taxes and tariffs, approving changes to the IDP and budget related policies, approve measurable performance objectives for revenue by source and expenditure by vote before the start of the financial year resolution, setting taxes and tariffs, approving changes to IDP and budget related policies, approving measurable performance objectives for revenue by source and expenditure by vote	MFMA s 16, 24, 26, 53 MFMA s 53 MSA s 38-45, 57 (2)	31 May 2007	IDP/BUDGETS
35	Final SDBIP's	Mayor must receive the SDBIP and draft performance agreements within 14 days after approval of the budget and the IDP.	MSA s 57 91) (b), s 57 MFMA s 69	14 June 2007	IDP/OPMS
36	Letter to MEC	Letter to MEC ito Systems Act and Regulations		14 June 2007	IDP/CITY MANAGER

37	SDBIP approval	Mayor to approve SDBIP's and performance agreements within 28 days after approval of the IDP and budget. Submit to the MEC of local government and makes it public within 14 days after approval	MFMA s 53, 16, 24, 26, 53, 75, 87 MSA s 38-45, 57 (2)	29 June 2007	IDP/OPMS
	PEU	Public Engagement Unit			
	IPM	Individual Performance Management			
	OPMS	Organisational Performance Management			
	IKM	Information and Knowledge Management			
	IGIDTT	Integrated Intergovernmental Development Task Team			
	MTIEF	Medium Term Income and Expenditure Framework			
	SDBIP	Service Delivery Business Implementation Plans			

Annexure B
Stakeholder involvement

Community Participation Strategy

Short description of the function/sector:-

To Manage the City's legal obligation to ensure Community Participation.

Outcomes

- Drive, Direct, Guide and support community participation processes.
- Ensure the implementation of an integrated, participative, citizen focused organization based on best practices

The most important task at hand?

- To establish the corporate function as required by the act and speed up the establishment of the interface with communities and stake holders.

Vision

To provide an environment in which the communities of the City Of Cape Town are able to dialogue with the City and one in which the City is able to respond to their concerns and comments in a mutually respectfull manner.

Legal requirements

Chapter 4 to 6 of the Municipal Systems Act is the basis for the requirement for the community participation process.

Key strategic issues & challenges

The changing of the mindsets of officials at all levels and breaking down of barriers between the City Of Cape Town and the communities.

Critical success factors

An efficient corporate structure, staff compliment and unqualified support from all city structures including the administration and political components.

Resources to be used to achieve outcomes

Capex
Initially capex required to establish the Directorate in terms of accommodation and furniture replacement and upgrading. (EST R500K)

Opex
Opex generally limited to normal staff and office overheads. Special Projects tend to be given for which allowances are made.

People
This is our most important resource. The success of community Participation Processes are dependant on the correct staff being employed and deployed in the organisation.

Strategic goals & objectives (Outcomes)

o   To create an enabling environment for communities to participate in meaningful dialogue with the City Of Cape Town
o   Facilitate a process of reviewing service delivery operations and engaging relevant stake holders to address short comings as identified by public.
o   Ensure the ongoing development of core functions by reviewing capacity of PP participants and other resources.

Key deliverables (Outputs)

The deliverables are the successful outcomes of processes involving the communities and the city in which all parties are satisfied with the final outcomes.

Key strategic programmes, projects and initiatives

Projects are variable and dependant on political as well as council planning decisions.

Public Engagement Towards the Drafting of the IDP

Engagement processes in respect of the Integrated Development Plan is carefully planned, contained in a Process Plan and approved by Council. As the City did not establish 'an appropriate municipal wide structure for community participation" as required in terms of Regulation 15 (1) (a) of the Municipal Systems Act (MSA), Council established a system of Sub-Councils throughout the City to act as mechanism to engage with civil society structures and the broader community at decentralised level. Council is also in the process of establishing municipal-wide ward participative mechanisms that should be established before the end of the current financial year, that will be a further evolvement of the participative framework of Council.

The IDP public participation process took place during the period of November and December 2006. Communities were asked to assist the city in preparing for its 2007/08 budget by identifying priority issues within their specific wards.

Marketing the IDP Public Participation Process:- The 2006 November/December public participation process was advertised through the corporate and local newspapers. A corporate advertisement with all the fifty four venues where meetings were scheduled to take place was placed on the newspapers. A standard advertisement was placed to radio stations within the City of Cape Town informing communities of their need to participate in the public participation process.

The involvement of communities:

1. **Towards the process plan** – (Section 29(a) of the MSA):- The process plan was advertised in local and regional papers for comment and was submitted to sub-councils for comment, giving the public, organised structures, interest groups and civil society adequate opportunity to comment on the process plan.

2. **Consultation on needs and priorities** – (Section 29(b)(i)):- The City embarked on an extended process of engagement that is still underway:

- **Province/City engagement –** The City Of Cape Town and the Provincial government held various meetings at Cabinet/Mayoral Committee, Heads of Department and Executive Management Team as well as at operational level to share information on needs, projects and plans of the different spheres of government within the boundaries of the City.
- **National Imbizo's** – The City and the Provincial Government jointly undertook a process of public engagement during October 2006 where 7 public workshops were held and inputs received from communities on public needs and priorities. Approximately 12,000 people attended these workshops.
- **IDP- Sub Council Engagement Workshops** – The City structured 54 formal workshops throughout the City in order to make attendance of these meetings more accessible to all communities. These meetings were advertised in local and regional newspapers, posters were placed at libraries and other public spaces and in certain areas people were called by means of loud-halers. Letters of invitation was sent to organised structures on the City database and buses were arranged for poor communities to enable their attendance. In some cases where attendance was poor, further meetings were arranged at the convenience of ward councillors, all in all 67 workshops were held during November and early December 2006. Almost 7000 people attended these workshops.

The process was presented in detail to sub council managers, sub council chairpersons, ward councillors and pr councillors during sub council meetings that were requested by sub councils. Questions of clarity were raised on the process thereby equipping councillors and sub council managers with the necessary information about the process.

Some councillors in turn communicated the message of the public participation process to their respective wards during ward meetings requesting communities to participate in the process. There was however some councillors that requested officials from the IDP office to present the public participation process to the street chairpersons meetings. One such example was a meeting called by the ward 40 councillors to address the ward street chair persons.

e-Based consultation

The City also gave communities, organised structures and interest groups with access to electronic media the opportunity to comment, identify needs and priorities. 888 e-based responses was received.

State Owned Enterprise Consultation -

Several engagements were held between the City of Cape town, Transnet, Portnet, ACSA and Eskom as part of the City's Spatial Planning and infrastructure development process. A meeting was also arranged through the Shareholders and Contracts department inviting the city's state owned enterprises informing them of the public participation process the city was embarking on the their legal obligation to forward their plans and programmes that would be would assist the city in preparing for its 2007/08 budget..

The meeting was attended by representatives of the three state owned enterprises (Khayelitsha Community Trust, Cape Town International Conventional and The Regional Electricity Distributor). Other City's partners like Wesgro, Cape town Routes Unlimited, Cape Town and Cape Town Partnership participated in the event.

- City-wide business and interest group consultation – Various engagements were held during the financial year with a variety of stakeholders that was concluded with a breakfast event where more than 200 representatives of stakeholder organisations from labour, business, religious sector, etc was represented. The draft budget and IDP was presented at this event,

giving representative structures the opportunity to comment on the budget and IDP. Invitations were sent to all stakeholder organisations on the City database.

- Website – The IDP was placed on the City website on the 29 March 07 for public scrutiny and comment. The City made the voting forms available through the IDP website where those that had access to the internet could login at the site and vote on the three top priorities that needed attention within their respective wards on nine issues that were listed. People were also asked to comment on the on specific services or projects that needed attention within their respective areas.
- City News – A public survey with voting and comment forms was included in the City News, a Council publication, and distributed to all households in the City where members of the public were given the opportunity to prioritise the 3 highest issues of concern. Approximately 700 people responded.
- Economic Development Initiatives - 5 major events involving public participation were rolled out. These are:
- A Conference was held early in the year for the establishment of Local Economic Development Forums, and the IDP Office co-facilitated in it. The objective was to educate the public about the IDP, and to establish the Small Business Steering Committees, that would subsequently be capacitated and empowered.
- A roadshow was initiated across sub Councils to make people aware of the need to establish sub Council LED Forums. At these sessions both politicians and the public were invited and attended.
- A Public Participation Process was rolled out to All the Regions and Districts in early 2006. Regional and District Steering Committees were established.
- A Provincial Small Business Week (SBW) was held at the Convention Centre, and was subsequently followed by District SBW Sessions held in all 6 Districts. From there a series of follow-up feedback and information sessions were held quarterly on how to partner with both the Business Chamber and RED Door in the establishment of Small Businesses for the community.
- A Pick n' Pay Business School has since been established in co-operation between Department of Local Government and the Chamber of Business, whose primary purpose is to Train and Skill young and unemployed youth in business start-up principles.

Capacity Building - IDP and Social Development:

A joint venture between the two departments: IDP and Social Development was initiated in Kensington, under the auspices of the Kensington Development Forum. During this venture a public awareness campaign on the IDP was held to educate the public on Prioritization and the Development of Ward Plans. The areas that benefited from this participatory process are: Philadelphia, Phela, Mamre, Greater Atlantis, Ogieskraal, Summersgreen, Witsand, Dunoon and Brooklyn.

All these areas have now been trained in the development of Ward Plans and Prioritization of Needs, and there has been training on the IDP itself.

- **Public Hearings -** The public hearing process is scheduled to start from 19 April 2007 to 04 May 2007. This process was preceded by the Wednesday, 11 April 2007 Mayoral Breakfast session whereby business, labour, religious structures and higher learning institutions were invited to get first hand information as well as ask questions on the City's 5 Year Plan and the 2007/08 draft budget.

The public hearing process is developed to give communities an opportunity to comment on, and advise, the city on its draft IDP and budget that is based on the previous public participation process where communities were invited to give their inputs.

Public hearing process is as follows:

- The Mayoral breakfast session was held on the 11 April 2007
- 32 Sub council hearings have been scheduled
- Advertisements were placed on the corporate and local news papers on the 3rd and 5th April 2007 informing communities of the public hearing process
- A press release was used as an alternative advertising tool informing the community about the public hearing process scheduled to start on the 19 April to 04 may 2007.
- Posters were used as advertising tool to inform communities of the public hearing process
- Feed back forms and feedback boxes placed in accessible places for communities to comment on the draft IDP and 2007/08 draft budget
- City's 5 Year Plan and 2007/08 draft budget documents places in all libraries, sub council and administration building
- Draft IDP and budget placed on IDP website for perusal
- Electronic feedback forms placed on the City's IDP web site for comment
- Sub council chairpersons and mangers briefed about the process
- Communities will be commenting on the process from the 19 April till 04 May 2007

Annexure C
Principles Informing the Spatial Framework and District Plans

The 5 main ideas and areas of action set out for discussion in the Future Cape Town document and which will form the foundation of the SDF and 8 District SDPs are:

Consolidate, protect and improve access to natural resources

The starting point of Future Cape Town is that we need to consolidate and protect Cape Town's world class assets as they have great environmental, economic and social value. They are a major part of what makes the city a unique and desirable place to live in, work in and invest in. The key strategic action areas are to:

- Protect valuable natural areas (geophysical features, river systems and agricultural land);
- Enhance ecological sustainability and protect the globally important and unique biodiversity;
- Improve the multi-functionality and connectivity of open spaces by consolidating and improving the Cape Town Metropolitan Open Space System (MOSS);
- Provide better access to both existing open space amenities and new ones;
- Create new city parks and multi-purpose sports complexes;
- Enable dignity in cultural, social and life celebrations such as initiation.

Promote an equitable pattern of access

The argument advocates the establishment of an equitable pattern of access so that people enjoy easy access to all parts of the City – particularly on public transport. This is an essential precondition to economic growth and efficient, sustainable development. The components of this idea include:

- Transforming the existing radial, CBD biased, transport system to a multi-directional network with strengthened south-north movement linkages to support urban renewal and the expansion of the city northwards and the development of critical east-west linkages;
- The alignment of the movement system and land use, especially along activity and development routes;
- The establishment of a citywide, efficient and affordable public transport system.

Sustainable and accessible economic opportunities

Economic and human development lies at the core of Cape Town's vision of a transformed, integrated and prosperous city. Spatial strategies which will help contribute to this include:

- Ensuring critical economic infrastructure and services (port, airport, road and rail network and water and electricity supply) are in place and that the local – international freight system is rationalised and enhances Cape Town and the region's economic development.
- Reinforcing and enhancing the economic backbone to establish it as a place of commerce and living that is easily accessed from all parts of the metropolitan area;
- Promoting new accessible, high opportunity commercial centres, tourism development opportunities and areas of mixed use development which have the potential to introduce new economies into depressed or marginalised parts of the city and create opportunities for emerging businesses, linked to public transport changes, recreational areas and the like;
- Making strategic sector locations attractive for investors through appropriate investment in infrastructure, transport and development partnerships.

Settlement – An integrated development path

An essential component of the argument is to ensure that all new development areas are truly 'integrated human settlements'. The basic premise is that settlements that integrate housing, economic activity, transport, nature, recreation and social amenities are the key to a viable and sustainable city. The argument makes the following important proposals to support and guide this approach:

- Urban growth should be contained and directed away from valuable natural and cultural resources. The implication is that urban development should not expand eastward and should be selective in growing northwards;
- Infrastructure planning and budgeting must be co-ordinated and aligned with the IDP's spatial growth strategy in order to ensure the effective and efficient use of existing and new infrastructure and service capacities.
- Opportunities and mechanisms to improve the sustainability of existing and new living environments (environmentally, economically and socially) must be proactively explored and promoted
- Existing mono-functional and isolated settlement areas such as the townships and public housing estates need to be transformed into well functioning suburbs with a mix of income groups and land uses.
- Key sites such as Wingfield and Culemborg must be identified for development, planned and released at appropriate times with appropriate supporting infrastructure;

Create more great people places

A key concept in the argument for the long term planning of Cape Town is the protection and creation of the built environment assets that form the foundation for not only its identity, its international marketability, its economy but also its unique sense of place. Key interventions in this regard should include:
- Protecting and enhancing existing special places such as the Sea Point Promenade, Grand Parade, V & A Waterfront, and Jubilee Square in Simonstown and developing new such urban special places;
- Protecting and enhancing cultural landscapes and urban heritage areas such as Bo-Kaap, Company Gardens and Kalk Bay;
- Realizing the development potential of the coastline e.g. the West Coast and False Bay in an environmentally sensitive manner and making it more accessible;
- Establishing new public places and facilities that can enhance the dignity and ultimately community and investor confidence in depressed locations.

Annexure D
Position Paper On Land Reform In The City Of Cape Town

PROBLEM STATEMENT

Since 1994 the South African Government embarked on a land reform programme to redistribute and return land to previously disenfranchised and displaced communities and individuals.

The pace and outcomes of land reform programmes over the first decade have been less than satisfactory and there are increasing signs of impatience and dissolution amongst the targeted groups. The process of rural-to-urban migration and the growth of the urban population have made land reform a very important urban issue, because the most universal and immediate land need in South Africa is for "a place to stay" rather than "a place to farm".

There is a perception that the City of Cape Town has also underperformed in terms of land reform and that the vast opportunities in this regard are not being utilised fully by especially the poor in the City.

PURPOSE OF THIS PAPER

The purpose of this paper is to analyse the current situation in Cape Town regarding land reform and to recommend how best the City could participate in and contribute towards land reform programmes so that the residents of the City can optimally benefit from it.

AN INTRODUCTION TO LAND REFORM

Land reform encompasses three inter-related components, namely: the Restitution, Tenure Reform and the Redistribution Programmes.

Land Restitution

The Land Restitution programme aims to have persons or communities dispossessed of Land after 19 June 1913, as a result of past discriminatory laws and practices, restored to them or receive just and equitable redress.

The purpose of Land Restitution Program and the City of Cape Town is to:

- Provide equitable redress to victims of racial land dispossessions in terms of the Restitution Act, no 22 of 1994 as amended.
- Provide access to rights in land, including land ownership and sustainable development
- Foster national, provincial, local reconciliation and stability
- Improve household welfare, underpinning economic growth, contributing to poverty alleviation
- Social and Spatial integration at national, provincial and local government

The City of Cape Town has developed and adopted its Land Restitution Policy Programme, Procedures and Systems. The City has also a Staff Unit of four people dedicated to the implementation of the Land Restitution Programme in the City. This Unit is situated in the Human Settlement Directorate.

Land Tenure

The White Paper on South African Land Policy (1997) explains that until the early 1990s, it was government policy that black people should not own land. Land rights in the homelands and townships were permit-based or held in trust. In most cases the land was registered as the property

either of the government or of the South African Development Trust. In many areas of the country, the administration of the land was confused and chaotic and, while households may have occupied land for many years, they had no legal right to it. This uncertainty was the cause of much conflict as land could be confiscated, redistributed or sold by others who claimed to own it.

The primary aims of the Land Tenure Program is to protect these backyarders, ordinary tenants, labour tenants, occupiers, farm workers from arbitrary evictions. The purpose of the tenure program is to provide these people with security of tenure in the places where they live and to provide guidance and regulations for their removals from the places where they live. The legislations that are applicable in tenure reform programme are:

- The Prevention of illegal Eviction from and Unlawful Occupation of Land Act, Act 19 of 1998;
- The Extension of Security of Tenure Act, Act 62 of 9197, (ESTA)
- Labour Tenants Act, Act 3 or 1996
- Interim Protection of Informal Rights Act, Act 31 of 1996

Tenure Programme is a suitable means for the City of Cape Town to develop and use to deal with backyarders problems. There is no single responsible Directorate for ESTA notices in the City of Cape Town. Tenure issues are being dealt with by different Directorates.

Land Redistribution

The purpose of the Land Redistribution programme, as outlined in the White Paper (1997), is to redistribute land to the landless poor, labour tenants, farm workers, and emerging farmers for residential and productive uses to improve their livelihoods and quality of life.

The redistribution programme has the following components or sub-programmes:

- Agricultural Development – to make land available to people for agricultural purposes, through the Land Redistribution for Agricultural Development program (LRAD – See Annexure B).
- Settlement – to provide people land for settlement purposes, through the Land Redistribution Act, Act 126 of 1986
- Non-agricultural Enterprises – to provide people land for non-agricultural enterprises, e.g. eco-tourism projects and Urban Renewal Programmes.

The Land Redistribution Program in the City of Cape Town is partly dealt with by the Directorate for Economic and Human Development. During December 2007 the Council did approve an Urban Agriculture Policy for the City which aims, inter alia, to assist urban farmers to participate in the LRAD programme.

INSTITUTIONAL ARRANGEMENTS FOR LAND REFORM

It is the constitutional competency of the Department of Land Affairs (DLA) to design, implement and monitor land reform in South Africa. On a functional level the DLA has regional offices in each province. In the Western Cape the DLA has split the province into six service areas along the administrative boundaries of the 5 district municipalities and the Cape Metropolitan Area.
All the land reform programmes suggest a strong emphasis on "district delivery" with meaningful involvement from district and local authorities. The following are extracts from the LRAD policy document that are self-explanatory in this regard:

- "Inter-departmental collaboration will take place at all spheres of government, with district government assuming a key role";
- "Projects will be undertaken in a manner consistent with district and provincial spatial development plans";
- "Work with District Council counterparts to ensure project congruence with IDPs/LDOs"

- "Implementation is decentralised: local-level officials provide opinions and assistance in preparation of project proposal";

A BRIEF OVERVIEW OF LAND REFORM IN CAPE TOWN

Annexure F1 gives a breakdown of land reform projects in Cape Town according to the categories of restitution, tenure and LRAD. Sections 3.1 and 3.2 below give a short summary of the current institutional arrangements in the City regarding land reform.

The District Assessment Committee (DAC)

In line with the provincial role-out strategy a district office was opened for the Cape Metropolitan area and subsequently a DAC for the City was established on the 23 July 2002. All parties agreed to a formal Terms of Reference (TOR) for the DAC and the following functions were initially assigned to it:

- The DAC will receive new applications every six months.
- The DAC will screen and either accept or reject applications / cases that seek the identification thereof as projects. It will support or not support the commitment of funds to prioritised projects within a particular period.
- The DAC will assess all Business Plans for viability and validity, including EIA; valuation; finances; institutional arrangements; water rights; training and other information.
- The DAC will either refer back for redesign OR recommend the project to the PGC.
- The DAC will inform the PGC of new applications recommended, as well as all Business Plans technically approved in the district.
- The DAC will ensure the effective pooling of available resources for increased impact in land reform.

Currently the DAC is housed in the Directorate: Economic Development and the Secretariat thereof is provided by the Development Facilitation Section of the directorate. The DAC is chaired by the City and since its inauguration the DAC has met 34 times. The main focus of the DAC is make recommendations to the Provincial Grants Committee (PGC) regarding LRAD applications and projects. It does not deal with ESTA and restitution matters.

The Land Restitution Unit of the City

This unit has been created under the Directorate: Human Settlement. It has four staff members dedicated to the implementation of the Land Restitution Programme in the City as mentioned under Section 1.1.

Obstacles to Land Reform in Cape Town

For various reasons there are many obstacles and delays to land reform in the City and the following are some of the critical ones:

A Weak District Assessment Committee

Since its inception the DAC was not given a priority by the political and administrative arms of the City. This is evident through the initial long delay before councillors were nominated to serve on the DAC and the current situation were no councillors are serving on the DAC for the last 18 months. On the other hand to attendance of City officials and from the external role-players were also very unsatisfactory. The administration of the DAC is housed in the Development Facilitation Unit of the Directorate: Economic Development which is now for some time subject to severe capacity constraints.

Lack of Central Unit or Portfolio for Land Reform

The City is a very big entity and as a result thereof land reform matters are handled in a fragmented way, i.e. the various functional units involved in land reform projects do not communicate with each other or align activities to complement each other. Thus there is no information flow or a holistic action plan for land reform in the City.

Lack of ESTA Interest and Response

There is no single entry point for ESTA notices in the City and as a result action and progress cannot be monitored effectively.

Lack of a Comprehensive Land Reform Strategy for the City Of Cape Town

Currently there is no land reform strategy to give guidance and priority to land reform programmes and action in the City.   Land reform is driven on an ad hoc basis with no clear commitment and direction from the political and senior management levels.

No Linkages with other Strategic Programmes and Actions

Land reform in the City is not formally integrated with strategic plans and programmes such as the IDP and Urban Renewal Programme.   There is therefore no visible influence from a land reform perspective on the implementation of projects flowing from these strategies.

Uncertainty about the Role of Land Reform in the City Of Cape Town

As is evident from the aforementioned obstacles and constraints unclear what the status of land reform is in the City. Is it perceived as an activity that should only be run by national government? Is it view as a priority, but an unfunded mandate?   Should the City allocate resources (human and financial) to the land reform programs? Should the City lead these programmes? Etc.

PROPOSED INSTITUTIONAL ARRANGEMENTS FOR LAND REFORM IN CAPE   TOWN

The City's Approach to Land reform

The City views Land Reform as a critical intervention for transformation and the empowerment of disadvantaged people. Therefore the City supports and promotes Land Reform within the context of co-operative government and the building of strategic partnerships, i.e. the City does not contemplate to encroach on the constitutional competencies of other spheres of government or to take up an unfunded mandate.
The City 's participation in the Land Reform programmes stems from the realization that co-operation and alignment of policies, strategies and action plans will improve resource allocation and utilization which will result in a much more significant impact on social and economic development.

Institutional Mechanism

The effective and efficient implementation of Land Reform in the City hinges around political support and administrative capacity to participate in these programmes.

In order to overcome the constraints and bottlenecks regarding Land Reform in the City it is advisable to create a single point of entry and accountability for Land Reform, i.e. the interface with the Department of Land affairs should be coordinated through one functional unit which should also be accountable for the outcomes thereof.

Flowing from this the following structure is being proposed:

Political Level

| Executive Councillor for Human Settlement | Reports to the Council on progress regarding Land Reform in the City |
| Portfolio Committee for Housing | Oversee the initiation of a Land Reform for the City |

Monitor project implementation and Land Reform targets

Administrative Level

Executive Director: Integrated Human Settlement   Accountable to the Executive Mayoral Committee regarding performance on Land reform

Ensure coordination and participation by all relevant functional units

| Director Human Settlement | Responsible for the establishment of a unit to facilitate the implementation of Land Reform programmes in the City |
| Land Reform Unit | Lead and participate in the design and implementation of Land reform Programmes in the City. |

Drive and house the administration of the various committees and project teams implementing Land Reform programmes and projects.

Annexure D1
Land Reform Programmes And Projects In Cape Town

Restitution Business Plan 2007/08

Business Plan: Functional Unit Objectives	Outputs 2007-08	Measures	Targets	Key Activities
KFA 1 : Facilitate that the resolution of the following Land Claims to include provision of alternative State or Municipal Land				
Constantia: Motivate for the restoration of Constantia to the claimants (PM)	Constantia land restored to its claimants.	Submission sent to council for approval.	End of October 2007	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Richmond Park: Motivate for the allocation of alternative land to the claimants Restore portion of original land (NS)	Richmond claimants receiving restoration of their land. Agreement on original land	Submission sent to council for approval. Submission sent to Council for approval	End of December 2007	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Crawford: Motivate for the allocation of alternative land to the claimants (GN)	Crawford claimants receiving alternative land.	Submission sent to council for approval.	End of October 2007	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Emavundleni: Motivate for the allocation of alternative land to the claimants (PT).	• Verified list claimants. • Crosschecked to the zebra and the waiting list. • Link to City 's Housing projects. • Emavundleni claimants receiving other forms of compensations viable.	Completion of crosschecking and lists. Submission sent to council for approval.	End of October 2007	• Lobbying RLCC to provide information. • Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Red Hill: Motivate for the allocation of alternative land to the Red Hill claimants (PT)	Red Hill claimants receiving alternative land.	Submission sent to council for approval.	End of October 2007	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Claremont:: Motivate for the allocation of alternative land to the claimants (NS)	Claremont claimants receiving alternative land.	Submission sent to council for approval.	End of October 2007	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Goodwood: Motivate for the allocation of	Claimants receiving alternative land.	Submission sent to council for approval.	End of October 2007	• Submission sent to council for the restoration.

Business Plan: Functional Unit Objectives	Outputs 2007-08	Measures	Targets	Key Activities
alternative land to the claimants				• Council takes part in the S42D agreement.
Luyolo: Motivate for the allocation of alternative land to the claimants (PT)	Luyolo claimants receiving alternative land.	Submission sent to council for approval.	End of June 2008	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Modderdam: Settle claim for original land (Rem Farm 477) (GN)	Claim settled	Obtain commitment & time frame for the resettlement of Malawi informal settlement	June 2008	• Malawi settlement relocation on Directorate budget
Grassy Park: Motivate for alternative land (erven 2695 & 2880) (GN)	Claimants receiving alternative land.	Submission sent to council for approval	June 2008	Submission sent to council for the restoration. Council takes part in the S42D agreement
Zeekoevlei: Original land claim (erf 650) (GN)	Claim settled	Submission sent to council for approval	June 2008	Submission sent to council for the restoration. Council takes part in the S42D agreement
Retreat restoration claims: 22 individual original land claims to be investigated (GN)	Claims settled	Submission sent to council for approval	June 2008	Submission sent to council for the restoration. Council takes part in the S42D agreement
Ottery: Alternative land claim on Erf 1449 (Cook) (GN)	Claimant receiving alternative land.	Submission sent to council for approval	Dec 2008	Submission sent to council for the restoration. Council takes part in the S42D agreement
Simonstown: Alternative land claim (Erven 803, 826 & 844) (GN)	Claimants receiving alternative land.	Submission sent to council for approval	June 2008	• Submission sent to council for the restoration. • Council takes part in the S42D agreement
KFA 2 : Facilitate the Re-settlement of the following claimants on the awarded land				
District Six: Facilitate the provision of housing and related services to these claimants. (NS)	• 2nd pilot complete • Overall planning completed • Dev model finalised • Dev Agreet finalised • Business Plan finalised	• Claimants occupying and transfer of title effected • Development plans approved and being implemented. • Dev Agreements signed • Business Plan finalised	End of August 08 October 07 May 07 August 07	• Development plans compiled, • Budgets approved , • Contructors appointed. • Development agreement signed.
Protea Village: Resettle claimants in a sustainable way	• Section 42D signed • Develop a viable business plan	• Signed S42D agreement • Completed business plan with financial backing and support of all claimants	November 2007	• Signing ceremony • Consultant appointed to develop BP
Steurhof: Facilitate the provission of housing these claimants. (PM)	• Bulk services installed, • Houses built for the claimants.	• Development plans approved and being iplemented.	End of June 07	• Development plans compiled & approved, • Budgets approved , Contructors appointed.
Ndabeni: Facilitate the provision of bulk infrastructure	• Geotech study, • Finalisation of planning,	Development plans approved and being implemented.	End of August 2007	• Development plans compiled, • Studies completed • PPP signed,

Business Plan: Functional Unit Objectives	Outputs 2007-08	Measures	Targets	Key Activities
and planning. Build capacity.(PM)	• Finalisation of PPP. • Development agreement signed, • Project administration and capacity building.	PPP and Development agreement document. Successful meetings, Trust holding feedback meetings with claimants, Trust participating confidently in the PPP meetings.	 Ongoing. Ongoing.	• Budgets approved.
Tramway Road: Facilitate the provission of housing these claimants. Monitor progress.(PT)	• Trust act independently • Meetings and phone calls.	Monitoring report.	October 2007	• Phone calls and attending meetings.
Daniels and Seas Family: Site preparation for release of land	• Site rezoned and subdivided and title transferred	Rezoning approved Subdivision approved Title transferred	End of October 2007	• Submission sent to council for the restoration. • Council takes part in the S42D agreement.
Bothasig: Initiate restoration project feasibility study on Erven 8350, 8347, 13134, &8353 (GN)	• Feasibility study completed	Create project with New Housing	Dec 2007	• Meetings with New Housing, engineers RLCC and other stakeholders
KFA : Facilitate the co-ordination and co-operation between the RLCC and City of Cape Town				
Progressive Restitution Policy for the City of Cape Town developed.	• Liaison Committee between RLCC and City established, • Joint restitution Bulletins produced • Co-operetion agreement between City and RLCC agreed.	• Liaison committee established, • 4x Bulletins produced pa, • Working relation between RLCC and City agreed.	• Ongoing • Quarterley • End Oct 07	• Meetings with RLCC and other stakeholders, • Draft Buletins and budgets approved, • Draft working relation document with RLCC produced.
Manage the finances and Human Resources of the section in support of good governace and service delivery.	• Restitution programe being implemented efficiently and effectively.	• % of restitution capital spent.	• 95% of capital budget spent.	• Recruit staff for restituition, • Develop work plans for staff

Tenure Reform

Active/On-going Projects

Project	Description	Status
Mamre		Act 9 : active
Pella		Active

Terminated/Dormant Projects

Project	Description	Status
Doornbach		Not active-waiting for Coct
Lourensford Estate		De-registered
Main Rd, Sir Lowry's Pass		Not active
Sir Lowry's Pass		Not active
Methodist Mission Grounds		Not active
Mr Hector : Kuilsriver		Not active

Completed Projects

Project	Description	Status
Bordeaux		Farm sold
Healthgro		Handed-over to DoA
Graceland		Completed – not active
Kirkleyvale		Handed-over to DoA
Nuwehoop		Completed – not active
United (Africa's Best)		Farm sold
Vukani, Mbekweni		Completed – not active
Vukuzenzele		Completed – not active

Active/On-going Projects

Project	Description	Status
Back to Eden		Active
Buitenverwachting		Case
Cape Town Commonage		Active
Hazeldean		Active
Langa Livestock		Active
Masizakhe		Active
Nooitgedacht		Active
Qurbaan		Active
Siyazama Women's Farming		Active
Traditional Health Practioners		Active
Tsama Farming Trust		Active
Uxolo		Active

Terminated/Dormant Projects

Project	Description	Status
Cancun cc		De-registered
Gugulethu AFA		De-registered
Masincedane		Case – not active
Mfuleni		Not active
Vlotenburg		De-registered

Annexure D2
Land Redistribution for Agricultural Development (LRAD)

The LRAD sub-programme has two distinct parts. Firstly, there is the part that deals with transfer of agricultural land to specific individuals or groups. Secondly, there is the part dealing with commonage projects which aims to improve people's access to municipal and tribal land primarily for grazing purposes.

The Land Redistribution for Agricultural Development sub-programme is flexible enough to accommodate a number of types of projects. Purely residential projects would not be supported under LRAD unless beneficiaries seek to establish household gardens at their new residences, and unless funds for top-structure are sourced from elsewhere, e.g. Department of Housing.

The types of projects that can be catered for include – but are not limited to – the following:
- Food safety-net projects:- Many participants may wish to access the Programme to acquire land for food crop and/or livestock production to improve household food security. This can be done on an individual or group basis. Many of these projects will be at the smallest end of the scale, because poor families may be able to mobilise only the minimum own contribution in cash, labour and materials.
- Equity schemes:- Participants can make the requisite matching own contribution, and receive equity in an agricultural enterprise tantamount to the value of the grant plus the own contribution. Because under the terms of LRAD, the grant is intended for people actively and directly engaged in agriculture, the grant recipient in the case of the equity scheme will be both a co-owner and employee of the farm. The purchased equity should be marketable in order to retain its value.
- Production for markets:- Some participants will enter LRAD to engage in commercial agricultural activities. They will access the grant and combine it with normal bank loans, approved under standard banking procedures, and their own assets and cash to purchase a farm. These farmers will typically have more farming experience and expertise than those accessing land for subsistence or food safety-net type activities.
- Agriculture in communal areas:- Many people living in communal areas already have secure access to agricultural land, but may not have the means to make productive use of that land. Such people would be eligible to apply for assistance so as to make productive investments in their land such as infrastructure or land improvements. These projects may take on the character of food safety-net projects, or may be more commercially orientated.

The agreed objectives of the Agricultural Development sub-programme as reflected in the framework document are to:

- increase access to agricultural land by black people (Africans, Coloureds, and Indians) and to contribute to the redistribution of approximately 30% of the country's commercial agricultural land (i.e. formerly 'white commercial farmland') over the duration of the programme.
- contribute to relieving the congestion in over-crowded former homeland areas.
- improve nutrition and incomes of the rural poor who want to farm on any scale.
- overcome the legacy of past racial and gender discrimination in ownership of farmland.
- Facilitate structural change over the long term by assisting black people who want to establish small and medium-sized farms.
- Stimulate growth from agriculture.
- Create stronger linkages between farm and off-farm income generating activities.
- Expand opportunities for promising young people who stay in rural areas.
- Empower beneficiaries to improve their economic and social well-being.
- Enable those presently accessing agricultural land in communal areas to make better productive use of their land.

- Promote environmental sustainability of land and other natural resources.

Annexure E
Disaster Risk Management

The Disaster Risk Management Centre of the City aims to prevent or reduce the risk of disasters, mitigate the severity or consequences of disasters, prepare for emergencies, respond rapidly and effectively to disasters and to implement post-disaster recovery and rehabilitation within the City of Cape Town by, monitoring, integrating, coordinating and directing the disaster risk management activities of all role players.

This is done in order to efficiently manage disaster risk in all communities of the City of Cape Town in an integrated manner in order to prevent or mitigate disasters and to soften disaster impact where prevention is impossible. The City has also introduced measures to meet the legislative requirements of the Disaster Management Act and the prescriptions of the Disaster Management Framework by combining area-focused and community-based risk assessments, disaster risk reduction and response planning that leads to integrated and sustainable development and resilient communities. The City also provides fast, efficient and equitable emergency response by appropriate services to safeguard life, property, the environment and livelihoods.

It is important to note that the overall implementation of Disaster Risk Management initiatives is the shared responsibility of all employees of the City of Cape Town and relevant external role-players.
The City will establish integrated institutional capacity within the administration to enable the effective implementation of disaster risk management policy and legislation and introduce an Indicative National Disaster Risk Profile by establishing and maintaining a uniform methodology to continuously assess and monitor risk by all disaster management stakeholders developed in accordance with approved frameworks

Communication links and integrated disaster management plans and risk reduction programmes will include all disaster risk management role players in provincial and municipal spheres of government to ensure effective and appropriate preparedness, response, recovery and rehabilitation.

A culture of risk avoidance will be promoted among stakeholders by capacitating all role-players through integrated education, training and public awareness supported by scientific research and the establishment of mechanisms for the funding of disaster risk management within the City

Strategic Outcomes

- The continuous integration of the Disaster Risk Management concept into the strategic and operational planning and all future development project implementation of **all line functions and role players** in order to contribute towards disaster prevention and risk reduction within the City
- Resilient communities
- An integrated, fast and efficient response to emergencies and disasters by all role-players.

Key deliverables (Outputs)

- Integrated institutional capacity for Disaster Risk Management
- Comprehensive disaster risk assessment
- Integrated disaster risk reduction
- Integrated disaster response and recovery
- Integrated information management and communication
- Integrated Disaster Risk Management education, training, public awareness and research

- Adequate funding arrangements for Disaster Risk Management

Key strategic programmes, projects and initiatives

- Establish integrated institutional capacity within the municipal sphere to enable the effective implementation of disaster risk management policy and legislation
- Generate an Indicative National Disaster Risk Profile by establishing and maintaining a uniform methodology to continuously assess and monitor risk
- Integrated disaster management plans and risk reduction programmes by all disaster management stakeholders developed in accordance with approved frameworks
- To ensure effective and appropriate preparedness, response, recovery and rehabilitation
- To develop a comprehensive disaster risk management information system and establish integrated communication links with all disaster risk management role players in provincial and municipal spheres of government
- Promote a culture of risk avoidance among stakeholders by capacitating all role-players through integrated education, training and public awareness supported by scientific research.
- Establish mechanisms for the funding of disaster risk management within the City

Key Performance Indicators, with benchmarks

The City must conform to the National Disaster Management Centre's performance management tool benchmarks. These are returned annually so that performance can be measured against all other municipal Disaster Risk Management Centre in the country.

Annexure E1
CORPORATE DISASTER RISK MANAGEMENT PLAN

Introduction

The Corporate Disaster Risk Management Plan serves to confirm the arrangements within the City of Cape Town to effectively prevent disasters from occurring and to lessen the impact of those hazards that cannot be avoided.

Disaster Risk Management is a continuous and integrated multi-sectoral and multi-disciplinary process of planning and implementation of measures aimed at disaster prevention, -mitigation, -preparedness, -response, -recovery and -rehabilitation (refer to the Disaster Management Act 57 of 2002).

Background

The preventative and risk-reduction elements of the DRM Plan must be implemented and maintained on a continuous basis. The emergency or re-active elements of the DRM Plan will be implemented in the City of Cape Town whenever a major incident or disaster occurs or is threatening to occur in its area of jurisdiction.

The definition of a **disaster** is "a progressive or sudden, widespread or localised, natural phenomena or human-caused occurrence which –

(a)   causes or threatens to cause -

(i)   death, injury or disease;

(ii)   damage to property, infrastructure or the environment; or

(iii)   disruption of a community; and

(b)   is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources".(Disaster Management Act, 57 of 2002)

In terms of the City of Cape Town's Multi–Disciplinary Incident Management Plan (MIMP), a major incident is defined as "a complex situation requiring the co-ordinated response of multiple emergency disciplines and resources".   In terms of the MIMP an incident is defined as "a situation requiring limited co-ordination emergency resources".

The Disaster Management Act places the responsibility for the implementation of the Corporate Disaster Risk Management Plan for the City on the appointed Head of the Disaster Risk Management Centre.

The Disaster Management Act requires the City to take the following actions:
- prepare a Disaster Risk Management Plan for its area according to the circumstances prevailing in the area;
- co-ordinate and align the implementation of its DRM Plan with those of other organs of state and institutional role players; and
- regularly review and update its DRM Plan. (DM Act - Section 48)

The City must submit a copy of its Corporate Disaster Risk Management Plan and any amendment to the DRM Plan to the National Disaster Management Centre and to the Disaster Management Centre of the Western Cape Province.

The Corporate Disaster Risk Management Plan:-

- Forms an integral part of the City's IDP,
- Anticipate the likely types of disaster that might occur in the City's area and their possible effects,
- Identify the communities at risk,
- Provide for appropriate prevention, risk reduction and mitigation strategies,
- Identify and address weaknesses in capacity to deal with possible disasters,
- Facilitate maximum emergency preparedness,
- Establish the disaster risk management policy framework and organisation that will be utilized to mitigate any significant emergency or disaster affecting the City of Cape Town,
- Establish the operational concepts and procedures associated with day-to-day operational response to emergencies by City Departments and other entities – these will also form the basis for a more comprehensive disaster response,
- Incorporate all special Hazard / Risk-specific and Departmental DRM Plans and related emergency procedures that are to be used in the event of a disaster. These will provide for –
- the allocation of responsibilities to the various role players and co-ordination in the carrying out of those responsibilities;
- prompt disaster response and relief;
- disaster recovery and rehabilitation focused on risk elimination or mitigation;
- the procurement of essential goods and services;
- the establishment of strategic communication links;

- the dissemination of information.

Purpose

The Corporate DRM Plan is designed to establish the framework for implementation of the provisions of the Disaster Management Act 57 of 2002 as well as the related provisions of the Municipal Systems Act, 32 of 2000.

The purpose of the DRM Plan is to outline policy and procedures for both the pro-active disaster prevention and the reactive disaster response and mitigation phases of Disaster Risk Management. It is intended to facilitate multi-agency and multi-jurisdictional co-ordination in both pro-active and re-active programmes.

The City of Cape Town's approach to Disaster Risk Management

City of Cape Town's Disaster Risk Management policy framework   (DM ACT - Section 41)
The City of Cape Town's Disaster Risk Management Advisory Forum must establish and implement a policy framework for Disaster Risk Management in the municipality aimed at ensuring an integrated and common approach to Disaster Risk Management entities in its area.

The City of Cape Town Municipal Disaster Risk Management Policy Framework is –

(a) consistent with the provisions of the Disaster Management Act;
(b) consistent with the National Disaster Risk Management Framework; and
(c) consistent with the Disaster Risk Management Policy Framework of the Provincial Government: Western Cape.

The Disaster Risk Management Centre (DRMC) will be the custodian of the Corporate (or City-wide) Disaster Risk Management Plan for Cape Town. Individual departments and entities will be responsible for the compilation and maintenance of their own Departmental Disaster Risk

Management plans. Along with specific hazard DRM plans, Departmental plans will be considered as integral parts of the Corporate Disaster Risk Management Plan.

The processes involved in Disaster Risk Management can best be explained through the Disaster Risk Management Continuum.
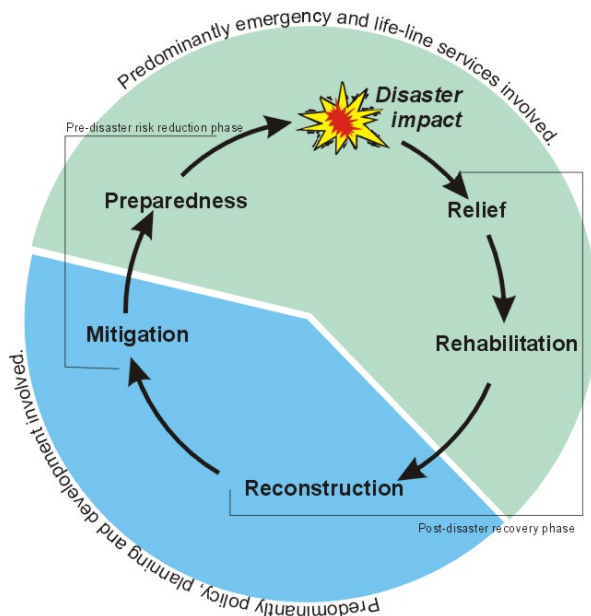

Figure 1: Disaster Risk Management Continuum

Figure 1 illustrates the DRM Continuum – it should be noted that Disaster Risk Management is not only re-active, but also involves actions aimed at preventing disasters, or mitigating the impact of disasters, i.e disaster risk reduction. Different line functions and departments must contribute in varying degrees to Disaster Risk Management in the various phases of the Disaster Risk Management Continuum. The needs identified in the Corporate Disaster Risk Management Plan will indicate where line functions and departments must contribute. These contributions should then be included in the respective line function or Departmental Disaster Risk Management plans as well as in any specific hazards for which special DRM Plans are produced.

Disaster Risk Management Plans must cover the whole Disaster Risk Management continuum and must address all actions before, during and after disasters. Disaster Risk Management Plans are compiled on the basis of a generic plan which will include references to any standard operating procedures (SOP's), legislation and best practice. Thses generic plans can be adapted to suit type of hazard/risk being dealt with. The Departmental DRM Plans are integrated with the relevant multi-disciplinary hazard / risk-specific plans so that all options are covered.

INSTITUTIONAL ARRANGEMENTS FOR DISASTER RISK MANAGEMENT

Corporate Management Structure And Arrangements

In terms of a management structure for Disaster Risk Management, the principle of functioning within the established structure of the City of Cape Town as far as possible will be adhered to.
The various levels making up the management structures for Disaster Risk Management in the City will respectively plan to maintain existing services and adapt to deal with the changed circumstances during major incidents or disasters. The planning, prevention and response management structure for the City of Cape Town is as follows :-
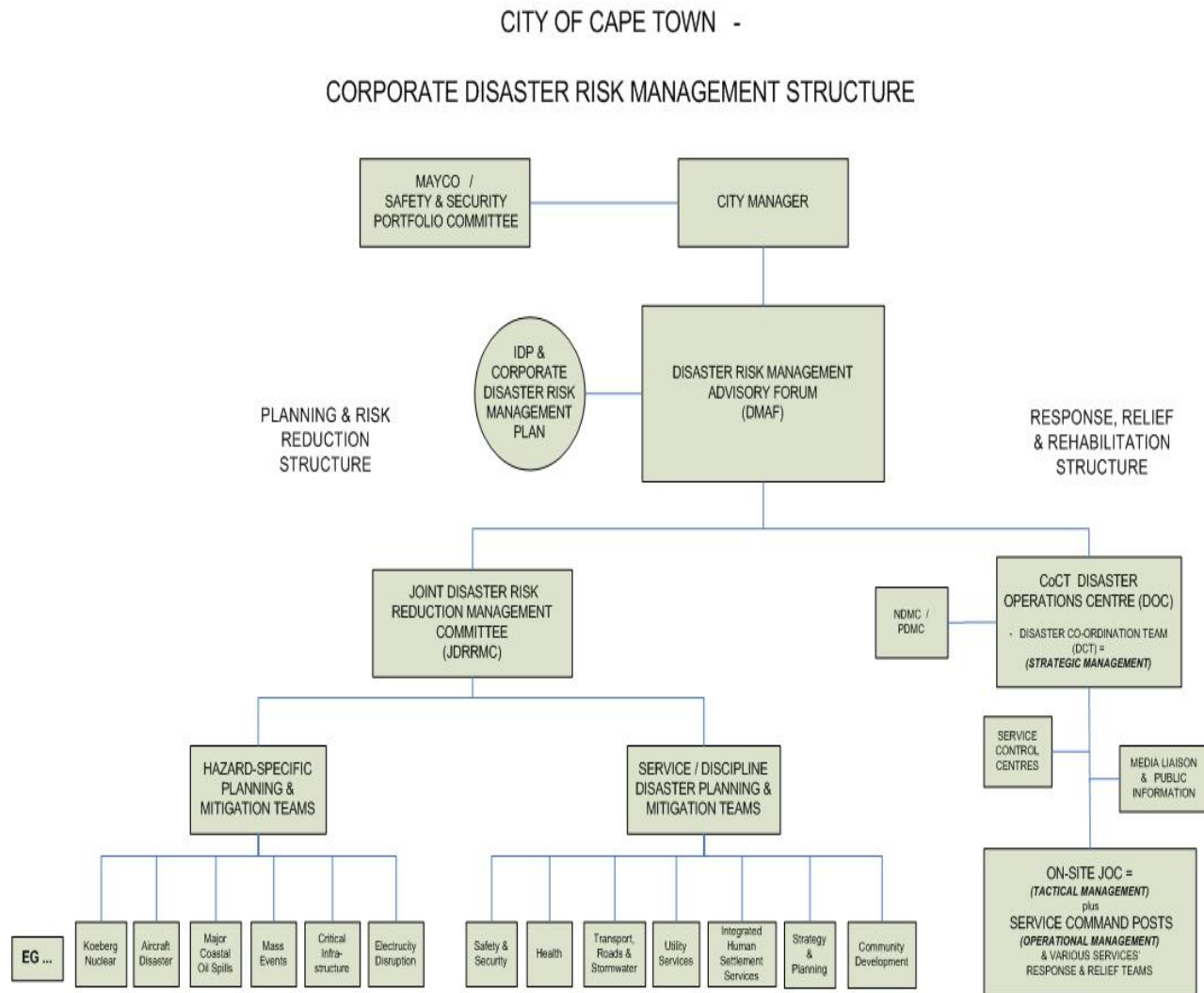
Figure 2: City of Cape Town Disaster Risk Management Structure

The first objective of the above structure must be to achieve disaster prevention, risk reduction and mitigation efforts in the day-to-day activities of the entities in the City of Cape Town. The second but equally important objective is to ensure effective disaster response, relief and rehabilitation efforts.

Disaster Risk Management Multi-Disciplinary Co-Ordination Arrangements

The City Disaster Risk Management Advisory Forum (DRMAF) will comprise of the following functionaries:

Internal to the City :-

City Manager, Head: Internal Audit, Executive Director: Corporate Services, Executive Director: Finance, Executive Director: Health, Executive Director: Strategy and Planning, Executive Director: Economic and Social Development, Executive Director: Community Development, Executive Director: Integrated Human Settlement Services, Executive Director: Safety and Security, Executive Director: Transport, Roads and Stormwater, Executive Director: Utility Services, Executive Director: Service Delivery Integration, Director: Emergency Services, Director: Communications & Marketing, Head: Disaster Risk Management Centre, Chief: Fire Officer, Chief: Metropolitan Police.

Representation may be adjusted by the Forum in accordance with the identified risks to the City which are being dealt with.

External entities :-

PG:WC Disaster Management Centre, PG:WC Emergency Medical Services, PG:WC Social Services and Povery Alleviation, PG:WC Traffic Control, SA Police Services - Western Cape, SA National Defence Force - Western Cape, plus representation from the CTIA, NPA, SANP, V & A Waterfront, Metrorail/Spoornet and the Disaster Relief NGO's,
Representation may be adjusted by the Forum in accordance with the identified risks to the City which are being dealt with.

Lines of Communication and Inter-Governmental Relations

In terms of the Disaster Management Act (Section 42(1)) it is incumbent on the City to establish in its administration a Disaster Risk Management Centre for its municipal area. Lines of communication and the relationship between the various Disaster Risk Management formations of the different spheres of government are illustrated in Figure 3.
The City of Cape Town's Disaster Risk Management Centre liaises with the Provincial Disaster Management Centre, which in turn liaises with the National Disaster Management Centre.

Figure 3: Lines of Communication

City Of Cape Town Disaster Risk Management Centre (Drmc

The DRMC must specialise in issues concerning disasters and Disaster Risk Management within the City of Cape Town. In this regard it must promote an integrated and co-ordinated approach to the function, with special emphasis on prevention and mitigation. The DRMC must perform functions and exercise powers as stipulated in the Disaster Management Act 57of 2002.
The DRMC will act as a repository and conduit for information concerning disasters, impending disasters and Disaster Risk Management in the municipal area. It will also promote the recruitment, training and utilisation of volunteers to participate in Disaster Risk Management in the municipal area – refer to DM Act - Section 43.
The Disaster Risk Management Centre will perform its functions –
(a) within the national, provincial and municipal Disaster Risk Management frameworks;
(b) subject to the City IDP and other directions of the City Council; and
(c) in accordance with the administrative instructions of the municipal manager.

It will liaise with and co-ordinate its activities with those of the National Disaster Management Centre and the Western Cape Provincial Disaster Management Centre and render assistance as required in legislation.

The DRMC must annually submit a report to the City Council and to the National and Western Cape Provincial Disaster Risk Management Centres – refer to DM Act - Section 47.

The hazard-specific and Departmental planning committees, the functioning of the Disaster Co-ordination Team (DCT) in the Disaster Operations Centre (DOC) and the On-site (mobile) Joint Operations Centre, etc. will be described in later sections of this document.

Responsibilities

The main stakeholders in the City of Cape Town's Corporate Disaster Risk Management Plan are listed in this Chapter and their respective specific responsibilities in *both* the disaster prevention / risk reduction / mitigation / preparedness   *and*   their disaster response, relief and rehabilitation requirements are indicated.

In terms of the Corporate DRM Plan, the primary objective of each stakeholder must be to prevent the occurrence of emergencies or disasters that threaten life, property, the environment or economic activity in the City of Cape Town. Failing the prevention of emergencies or disasters through the elimination of risk, the secondary objective is to reduce risk and vulnerability and thus lessen the possible impact of emergencies or disasters.

Disaster Risk Management advisory forum (DRMAF)

It is the responsibility of the CoCT Disaster Risk Management Advisory Forum to approve the compilation and maintenance of a Corporate Disaster Risk Management Plan which will be compiled and maintained by the Disaster Risk Management Centre, as well as the incorporation of the relevant supportive hazard or risk-specific and Departmental Plans.

The Disaster Risk Management Advisory Forum shall be responsible for the review of the Corporate DRM Plan on an annual basis.   It is also responsible to make recommendations for changes that are considered appropriate and the verification of the required support documents, resources, training, and facilities to ensure that the Plan is maintained.

The DRMAF will also have the responsibility of oversee the assigning project teams to address specific risks and develop risk-specific plans by the JDRRMC - refer to the functions of the Joint Disaster Risk Reduction Management Committee (JDRRMC) in Paragraph 6.4.
In order for the DRMAF to perform its task effectively, it must ensure that the following actions take place:-
Risk-reduction phase:
- Risk assessment in the City ,
- Assessing capacity of the City to implement emergency response actions,
- Formulate plans and projects to reduce risk.

During emergencies or disasters:
- Assessing the effect of any disaster and any further consequences and risks in the emergency area(s),
- Assessing the consequences and risks to the remainder of the City,
- Assessing all response actions,
- Advise and formulate recommendations on the response actions., including the mitigation of any further risk.

Recovery and rehabilitation phase:
- Ensuring a return to normal functioning of affected communities as soon as possible,
- Provide input on disaster prevention or mitigation through risk elimination or reduction.

Disaster Risk Management, and therefore also risk reduction, principles must be applied throughout these phases.

Disaster Co-ordination Team (DCT)

The DCT which is to be convened (activated) for any major Incident, Emergency or Disaster situation in the Disaster Operations Centre (DOC) in Goodwood, will consist of a number or all of the following functionaries, depending on the nature of the Incident :-

Head: Disaster Risk Management Centre (Chairperson), Director: City Emergency Services, Director: Communications & Marketing, Director: Electricity
Director: Human Settlements Services, Director: Municipal Health Services, Director: Environmental Resource Management, Director: Solid Waste
Director: Sports, Recreation and Amenties, Director: Transport, Roads and Stormwater, Director: Water and Sanitation, Chief Fire Officer, Metropolitan Police Chief.

NOTE : The City Manager and Executive Directors may also be part of the Disaster Co-ordination Team (DCT) if the nature of the emergency situation requires this.

The DCT will be responsible to assess, evaluate and co-ordinate all actions in all the phases of the incident at a strategic level.   Each line function will be responsible for the implementation of its own departmental disaster plan but the DCT will ensure co-ordination and support between departments and all external bodies.

The DCT will be convened and chaired by the Head of the Disaster Risk Management Centre at the DOC in Goodwood or at another suitable facility which is appropriately removed from any direct hazard or risk. The DCT will be activated through the procedures outlined in the Disaster Response Plan section.

CoCT DISASTER OPERATIONS CENTRE

The CoCT Disaster Operations Centre (DOC) must perform the following functions under the guidance of the Disaster Co-ordination Team when DCT is convened / activated during any major Incident or Disaster situation to oversee response and relief operations :-

- Maintain records of communications, decisions, actions and expenditures,
- Have continuous communication and liaison with all Disciplines on-site through the On-site Joint Operations Centre (JOC) and the respective Service Command Posts on site,
- Designate emergency area(s) and sites,
- Decide on emergency measures and priorities,
- Assess impact
- Request emergency partner assistance / invoke mutual aid agreements,
- Close public buildings,
- Issue public warnings, orders and instructions,
- Protect the health and safety of emergency responders,
- Ensure an acceptable level of emergency services for the City outside emergency area(s),
- Prepare lists of fatalities, casualties and missing persons,
- Prepare lists of destroyed and damaged properties,
- Consider the declaration of a Local State of Disaster,
- Co-ordinate response with provincial ministries through PG:WC Disaster Risk Management,
- Co-ordinate response with non-governmental disaster relief organisations, neighbourhood and community organisations.
- Identify all persons / organisations which can contribute to emergency response,
- Provide information to the media for dissemination to the affected population(s) and the general public,
- Co-ordinate information for public release with emergency partners' communications staff,

- Respond to inquiries from the media, public,
- Identify target audiences for post-emergency communications,
- Identify persons/organisations to contribute to post-emergency reports/debriefings
- Submit information for payment of invoices

Joint Disaster Risk Reduction Management Committee (JDRRMC) And Hazard / Risk-Specific And

Departmental Project Teams

Hazard / Risk-specific Project Teams will be responsible to plan, manage and complete multi-disciplinary projects and produce the necessary DRM Plans in the *pre-disaster risk reduction and preparedness phases*. They will continue with DRM Plan maintenance and readiness for as long as this is necessary.

Special Project Teams may also be convened to address specific risk-mitigation issues during the *post-disaster recovery and rehabilitation phases*. Such Teams will determine their respective terms of reference and deliverables under the direction of the JDRRMC and the CoCT Disaster Risk Management Advisory Forum.

The DRMAF will delegate the JDRRMC to ensure that Project and Departmental Teams are convened and maintained to address risk-specific Disaster Risk Management plans, such as plans for nuclear emergencies, flooding, major coastal oil spills, transport disasters, hazardous materials incidents or mass events preparedness.   Policies, plans and procedures that address efficient incident management and inter-disciplinary co-operation during incidents are to be included in these DRM Plans. The input of specialist advisers in the various fields must be obtained on an ongoing basis.
In the recovery and rehabilitation phase, these Project Teams will take over responsibility for recovery and rehabilitation from the Disaster Co-ordination Team (DCT) once the DCT is demobilised and / or in cases where recovery and rehabilitation takes place over an extended period.

A Special Project Team under a specific line function / department may be convened to take responsibility for activities that address the causal factors of any disaster or major incident occurrence. Such Teams will receive a brief from and report back to the Disaster Risk Management Advisory Forum and to senior management and will work in close co-operation with the DRMC. Their recommendations must be incorporated into the respective hazard / risk-specific and Departmental DRM Plans and, if necessary, the Corportae DRM Plan.

City Manager

To ensure that disaster prevention, disaster risk reduction, and disaster preparedness and response, the City Manager, assisted by the DRMC, must ensure that Disaster Risk Management is integrated into the functions of each discipline / entity within the organisation so that it is executed in an effective and efficient manner throughout the City of Cape Town.
During and after responses to major emergencies or disasters the City Manager will be responsible to personally or through a designated official to:
- Report, liaise and consult with councillors and external provincial and national government departments,
  - Report on emergency impact and response to the Executive Mayor,
  - Report on emergency impact and response to the councillor(s) for the affected area(s),
  - Report on emergency impact and response to the remaining Councillors,
  - Notify next-of-kin when a City employee is injured, missing or killed during any emergency situation,
  - Authorize any extraordinary expenditures (access to the CoCT Disaster Fund),
  - Identify persons / organisations to receive recognition for contributions made to emergency response.

Chief Internal auditor

The Head: Internal Audit must ensure that Disaster Risk Management Plans are compiled and maintained in his / her Service, with specific reference to the following:

- Auditing and informing the relevant Disaster Risk Management Plans of Council Installations to ensure pro-active risk reduction and compliance with relevant legislation, codes and regulations,
- Audit compliance of City services with the stipulations of the Corporate Disaster Risk Management Plan,
- Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Corporate Services

The Executive Director: Corporate Services must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate, including the Administrative Services, Human Resources Management, Technical Support Services and Organisational Optimisation Departments, with specific reference to the following Departments:

Director: Legal Strategy

The Director: Legal Strategy must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Department, with specific reference to the following:

- Monitoring compliance with relevant legislation, regulations, licenses and by-laws,
- Documenting information for potential legal actions,
- Documenting information for potential compensation claims,
- Identifying information to be documented for inquests or investigations under applicable laws.

Director: Communications & Marketing

The Director: Communications & Marketing must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Department, with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
- Providing information to persons at emergency facilities (eg. Assembly points / evacuation centres / mass care facilities),
- Providing information to persons at special incident-related meetings,
- Providing information to City employees and their families who are affected by emergencies / disasters,
- Arranging site visits for persons affected by the emergency, eg. families of deceased persons,
- Arranging anniversary events of disasters for affected persons in support of efforts to facilitate psychosocial coping mechanisms,
- Regularly updating on emergency situation to councillors,
- Supporting the DRMC in communicating status reports and public safety notices.
- Supporting the DRMC in risk-reducing public education and awareness programmes.

- Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes),

Director: Human Resources Management

- Providing information to CoCT staff and their families regarding aspects of any emergency or disaster,
- Documenting information for remuneration of municipal employees involved in emergency response,
- Reporting to the Health and Safety Committees on the emergency responses undertaken in the City,
- Documenting potential occupational health and safety issues,
- Documenting information for potential municipal labour relations issues.

Directors of External Relations and Citizen Relations

- Liaising with external role-players regarding Disaster Risk Management issues.

Executive Director: Finance

The Executive Director: Finance must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service, to lead and direct financial functions of the City of Cape Town so that the current and future effectiveness of Council services, programmes and operations are insured and these include Treasury, Budget, Revenue, Supply Chain Management, Valuations and Asset Management, with specific reference to the following;

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
- Documenting information for potential municipal insurance claims,
  - Managing donations for emergency response,
  - Facilitating emergency procurement,
  - Initiating and facilitating efforts to make funds available for disaster management in the municipal area (Section 43),

  - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
  - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: CITY Health

The Executive Director: City Health must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service, with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,

- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
- Steps to eliminate risks presented by communicable disease,
- Isolate person(s) in order to decrease or eliminate risk presented by a communicable disease,
- Protect the health and safety of emergency responders,
- Care for evacuees and victims,
- Monitor large groups of people for contamination and/or health effects,
- Immunize large groups of people,
- Assist with the management of emergency shelter, evacuation assembly points and mass care facilities for persons displaced by emergencies or disasters
- Provide health care for disrupted populations (may be general population or limited to vulnerable populations and essential service operators),
- Seize and dispose of food that poses a health hazard,
- Monitor the environment (air, water, and ecosystem) for contamination,
- Identify victims, responders or affected persons who may require medical follow-up and/or who may require psychosocial support,
- Identify persons/organisations to contribute to post-emergency reports/debriefings,
    - Supplying resources for Disaster Risk Management purposes as requested by the City Health representative on the Disaster Co-ordination Team (DCT),
    - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Strategy and Planning

The Executive Director: Strategy and Planning must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate, and is required to provide strategy and management of the Environmental Resource Management, Developmental Management and the Land Use Planning Departments, with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
    - Include the reduction of natural disasters as an element in environmental education programmes,
    - Identify possible environmental disasters.
    - Compilation of pro-active environmental Disaster Risk Management programmes to support risk reduction or elimination.
    - Monitoring the environment (ground, air, water and the ecosystem) for contamination,
    - Assist and advise on HAZMAT clean-up and decontamination of the environment
    - Ensure linkages between this plan and infrastructure development framework.
    - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
    - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Director: Information and Knowledge Management

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,

- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
  - Rendering support and advice throughout all phases of Disaster Risk Management planning activities,
  - Compiling, exercising and carrying out adequate disaster recovery procedures for IT infrastructure and information management,
  - Establishing and maintaining required informatics links to maintain the DRMC's Disaster Risk Management Resources Database (DisRes),
  - Supplying IT Infrastructure and assets to host and maintain DisRes, integrated GIS and any other IT systems which can assist in Disaster Risk Management,
- Act as a liaison between the City Manager and the Disaster Risk Management .

Director: Environmental Resource Management

The Director: Environmental Resource Management must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service, with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
- Identifying persons / organisations to contribute to post-emergency reports / debriefings,
- Plan and ensure that risk reduction and disaster mitigation principles are adhered to in the recovery and redevelopment phases,
- Ensure that risk reduction and mitigation principles are applied as part of the environmental input into all development projects,
- Include the reduction of natural disasters as an element in environmental education programmes,
- Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes),
- Identify possible environmental disasters,
- Identification of land for mass burials if required.

Executive Director: Economic and Social Development

The Executive Director: Economic and Social Development must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate and is required to provide startegy and management of the property, social development, arts and culture and economic and tourism development Deatrments, with specific reference to the following:
- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
- Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Community Development

The Executive Director: Community Development must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate, and is required provide strategy and management to the Parks and Cemetries and Library Services Departments, with specific reference to the following Department:

Director: Sports, Recreation and Amenities

The Director: Sports, Recreation and Amenities must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Department, with specific reference to the following:
- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency/disaster situations,
- Emergency / contingency planning for all Council facilities used for mass events,
- Make available facilities for emergency assembly and/or shelter of persons displaced by emergencies or disasters,
  - Plan and assist with the management of emergency shelter, evacuation assembly points and mass care facilities for persons displaced by emergencies or disasters,
  - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
  - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: INTEGRATED Human Settlement Services

The Executive Director: Integrated Human Settlement Services must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate and is required to provide startegy and management of the Policy, Research Planning and Monitoring, Existing Settlements and New Settlements Departments, with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency / disaster situations,
  - Identify and make available alternative land and housing / shelter for persons displaced by an emergency or disaster,
  - Plan and assist with the management of emergency shelter, evacuation assembly points and mass care facilities for persons displaced by emergencies or disasters,
  - Ensure that all housing and servicing projects promote risk reduction,
  - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
  - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Safety and Security

The Executive Director : Safety and Security must:

- Ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate,
- Establish and ensure the effective functioning of the Disaster Risk Management Advisory Forum,

- When necessary and assisted by the Head: DRMC, submit reports containing recommendations for changes to the Corporate Disaster Risk Management Plan to Council
- The specific responsibilities of the following key Departments and Services are as follows:

Director: City Emergency Services

The Director: City Emergency Services is responsible for the effective planning and functioning of the City's Emergency Services and Disaster Risk Management Centre throughout all the phases of the Disaster Risk Management Continuum.
He/she must ensure that Disaster Risk Management Plans are compiled and maintained in his/her directorate, with specific reference to the following:

- establishment and maintenance of the City of Cape Town Disaster Risk Management Centre and the Fire and Rescue Service,
- compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination.
- compilation of reactive departmental Disaster Risk Management plans to ensure service continuation during emergency / disaster situations.
- co-ordinating response and mutual aid agreements with adjacent District Councils in the Western Cape,
- protecting the health and safety of emergency responders,
- maintaining a central registry of evacuees,
- identifying persons who may require long term care and accommodation,
- identifying target audiences for post-emergency communications,
- ensuring acceptable level of emergency services for the city outside of the emergency area(s),
- identifying persons / organisations to contribute to post-emergency reports/debriefings,
- supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Head of the Disaster Risk Management Centre (DRMC)

The Head: DRMC is responsible for the compilation, maintenance and distribution of the City's Corporate Disaster Risk Management Plan and its supporting risk-specific and Departmental Disaster Risk Management Plans. The Head: DRMC is also responsible for the performance by the Centre of its Disaster Risk Management functions and to implement and co-ordinate the City's Corporate Disaster Risk Management Plan (DM Act, Section 44(1)).

The Head: DRMC must:
- When deemed necessary, declare a local state of disaster as per the DMAct,
- Liaise with provincial officials and national officials,
- Co-ordinate response with CBO'S and NGO'S,
- Authorize area evacuation / re-entry when area is safe,
- After consultation with the DCT authorise area evacuation/re-entry
- Identify persons/organisations to receive recognition for contributions to the emergency response,
- Establish and maintain required telecommunications links with all the relevant departments and entities,
- Identify available resources for Disaster Risk Management purposes as requested by the DCT,
- Establish and maintain a resources database (DisRes).

- Ensure effective media liaison and public early-warning
- Provide situation reports to all internal and external role-players on a regular basis

The Head: DRMC, in consultation with the Disaster Co-ordination Team (DCT), will determine the appropriate response structures to any incident or disaster and when these structures can be de-activated or scaled down.

Chief Fire Officer

The Chief Fire Officer must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service, with specific reference to the following:
- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management plans to ensure service continuation during emergency/disaster situations,
- Preventing the outbreak or spread of fires,
- Fighting or extinguishing fires,
- Protecting life and property from fire or other threatening danger,
  - Rescuing of life or property from fire or other danger,
  - Evacuating designated area(s) threatened by fire of both persons and livestock,
  - Assist and manage hazardous material decontamination facilities and operations
  - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
  - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Manager: 107 Public Emergency Communications Centre (PECC)

The Manager of the 107 PECC must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management plans to ensure service continuation during emergency/disaster situations,
- Provide and support the DRMC with a 24-hour communication facility for the notification of Major Incidents and any subsequent communication needs,
  - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
  - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Chief: Metropolitan Police

The Chief: Metropolitan Police Department must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service, with specific reference to the following:

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination.
- Compilation of reactive departmental Disaster Risk Management plans to ensure service continuation during emergency/disaster situations.

- Co-ordinating Incident response with the South African Police Service and national security forces or departments,
- Protecting the safety of emergency responders, evacuated areas, affected communities and damaged or threatened property,
- Controlling and dispersing crowds,
- Support the evacuation of designated area(s) which are threatened by any emergency of both persons and livestock,
- Control of access to and egress from emergency area(s),
- Protecting private and public property,
- Managing and controlling traffic in and around emergency area(s), on evacuation routes and on emergency vehicles' access and egress routes,
- Identifying persons / organisations to contribute to post-emergency reports / debriefings,
- Protecting essential service facilities and infrastructure,
- Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Transport, Roads and Stormwater

The Executive Director: Transport, Roads & Stormwater must ensure that Disaster Risk Management Plans are compiled and maintained in his/her service, with specific reference to the following:
- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency / disaster situations,
- Confining and containing flood water where possible,
- Providing technical advice in preventing or reducing the effects of flooding and storm-damage,
- Liaison with the Ministry of Water Affairs and Forestry as required,
- Removing debris from transportation routes and other sites as required,
- Liaison with the provincial and national transport departments as required,
- Assist and advise on HAZMAT clean-up and decontamination of infrastructure and the environment,
- identifying and prioritising essential services that may require restoration as the result of an emergency or disaster,
- Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
- Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Utility Services

The Executive Director: Utility Services must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate and will be required to provide strategy and management of the Electricity, Water and Sanitation and Solid Waste Departments, with specific reference to the following:

Director: Electricity

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,

- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency / disaster situations,
    - Co-ordinating response with businesses and industries affected by the emergency,
    - Co-ordinating response with national and provincial Public Works departments,
    - Co-ordinating response with Eskom regarding electricity supply to the City,
    - Allocating available electricity,
    - Planning alternate electrical supply,
    - Arranging for an alternate telephone or communication service, if required,
    - Controlling telecommunications system load,
    - Identifying buildings which are electrically unsafe,
    - Identifying and prioritising essential services that may require restoration as the result of an emergency or disaster,
    - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
    - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Director: Water and Sanitation

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency / disaster situations,
    - Co-ordinating response with businesses and industries affected by the emergency,
    - Controlling consumption of public water supply,
    - Providing alternate water supplies (potable, industrial and for fire-fighting),
    - Identifying and prioritising essential services that may require restoration as the result of an emergency or disaster,
    - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
    - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Director: Solid Waste

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency / disaster situations,
    - Disposing of non-hazardous waste,
    - Advising and providing facilities for the disposal of hazardous waste,
    - Identifying and prioritising essential services that may require restoration as the result of an emergency or disaster,
    - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
    - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Executive Director: Service Delivery Integration

The Executive Director: Service Delivery Integration must ensure that Disaster Risk Management Plans are compiled and maintained in his/her Directorate and will be required to provide strategy and management of the Programme Management, Cross-cutting Projects, IDP/PM, IT Process Management and Service / Business Cycle Departments, with specific reference to the following Departments:

IDP / Performance Management

- Ensure that the Corporate Disaster Risk Management Plan forms an integral part of the IDP,
- Ensure that risk reduction and mitigation principles are applied in all development projects

The Directors of Programme Management and Cross-Cutting Projects

- Compilation of pro-active departmental Disaster Risk Management programmes to support risk reduction or elimination,
- Compilation of reactive departmental Disaster Risk Management Plans to ensure service continuation during emergency / disaster situations,
  - Submit development plans to the DRMC for input regarding risks and hazards,
  - Supplying resources for Disaster Risk Management purposes as requested by the Disaster Co-ordination Team (DCT),
  - Establishing and maintaining a resources database that is integrated with the DRMC's Disaster Risk Management Resources Database (DisRes).

Financial aspects: it and financial audits, operational audits, forensic & investigative audits

If the execution of obligations and duties as outlined in this Plan entails costs for any Service, provision must be made in the relevant service's budget.
Under certain circumstances the City will be re-imbursed by National Government for disaster response efforts. The Disaster Management Act 57 of 2002, Chapter 6, however states that the Minister of Provincial Affairs and Local Government, may in the case of disaster relief funding, prescribe a percentage of the budget of a local authority which can be used as a threshold for accessing additional funding from lthe Department for response efforts.
This implies that the amount set as a threshold will have to be spent by the City on disaster response and relief before financial assistance may be considered by National Government.
The financial assistance to be provided by National Government may take into account what planning, prevention and mitigation measures were taken pro-actively and whether the situation could have been avoided or minimised had the City implemented the aforementioned actions.
If planning and prevention strategies have not been implemented the local authority will be penalised from a financial point of view. It is therefore vital that comprehensive Disaster Risk Management Plans are in place to substianciate any possible future financial claims.

Departmental Disaster Risk Management plans

Each individual Directorate, Department, Service or Entity of the City of Cape Town, as indicated in the City's Disaster Risk Management Framework, is responsible for submitting its Departmental Disaster Risk Management Plan to the Disaster Risk Management Centre and to the Executive Director: Service Delivery and Integration for inclusion in the City's Intgrated Development Plan to ensure efferctive development co-ordination. All Departmental DRM Plans should primarily be directed at hazard prevention or risk reduction, but disaster response and rehabilitation aspects must be included and regularly exercised to ensure that Department's readiness for any catastrophic event in the City.

Aspects to be addressed in any Disaster Risk Management Plan should encompass the following :-

- Planning Framework & Scope of the DRM Plan
  - the way in which the concept and principles of Disaster Risk Management are to be applied in the Department's functional area;
  - the relevant Department's role and responsibilities in terms of the national, provincial or municipal Disaster Risk Management frameworks;
- Risk Management Efforts -
  - o Evaluation and description of Infrastructure / Organisation available. e.g. Disaster Risk Management Resources Database (Its capacity to fulfil its role and responsibilities)
  - Prevention through risk elimination e.g. Remove hazards / alternative processes (Particulars of its Disaster Risk Management strategies)
  - Mitigation through risk reduction. e.g. Engineering solutions / Legislative compliance / Safety culture

Preparedness planning for major risks that cannot be eliminated. (Contingency strategies and emergency procedures in the event of a disaster, including measures to finance these strategies)
- Contingency Planning based on risks and vulnerabilities. e.g. Fire / Chemical spills / Engineering aspects
- Emergency organisation, internal and external
- Emergency management structure and allocation of responsibilities
  - Standard Operating Procedures
  - Integrtaed communications systems and other resources
  - Response planning (Role and responsibilities regarding a response to an emergency / disaster situation)
    - Emergency response teams (groups with special responsibilities during emergencies)
    - Notification and Activation (Stand-by Lists / Emergency contact numbers, Resources to be used / additional resources)
    - Recovery plans

Its role and responsibilities regarding post-disaster recovery and rehabilitation; Business Continuity / Disaster Recovery for IT systems, etc. May also lead to reconstruction and redevelopment projects and programmes
- Lines of communication (Protocols) and liaison with other

  Internal and external communication lines (Who informs who, who reports to whom).(Each Department must co-ordinate and align (integrate) the implementation of its DRM Plan with those of other co-responding role-players / entities. The DRM Plan must be regularly reviewed and updated).

- Awareness and Education Efforts
  Before (Prevention, Mitigation and Preparedness)
  During (Notifications and advisories)
  After (Advisories, Public information and education) – Return to "Before"

- Evaluation and Maintenance programmes.

Disaster-Risk And Vulnerability Profiles

The assessed disaster-risk and vulnerabilities that a particular hazard poses will determine the priorities for Disaster Risk Management programmes and projects. The amount of possible benefit to be derived from a project in terms of lives protected, livelihoods secured and property or natural resources defended, will be the criteria that determines priorities.

In a generic sense, the following hazards which pose the highest risks City-wide have been identified by the CoCT Disaster Risk Management Centre :-

A.   RAPID-ONSET HAZARDS

TECHNOLOGICAL HAZARD CATEGORY
DMP 1 - KOEBERG NUCLEAR POWER STATION EMERGENCY
DMP 2 – MAJOR HAZMAT INCIDENT - FIRE / SPILL / LEAK
DMP 3 - MAJOR COASTAL OIL SPILL
DMP 4 – MAJOR ENVIRONMENTAL POLLUTION (GROUND / WATER / AIR)
DMP 5 – MAJOR STRUCTURAL COLLAPSE
DMP 6 – DAM FAILURE

TRANSPORTATION HAZARD CATEGORY
DMP 7 - MAJOR AIRCRAFT INCIDENT
DMP 8 – MAJOR RAIL INCIDENT
DMP 9 – MAJOR SHIPPING INCIDENT
DMP 10 – MAJOR ROAD TRAFFIC INCIDENT
DMP 11 – MAJOR AERIAL CABLEWAY INCIDENT

NATURAL / ENVIRONMENTAL HAZARD CATEGORY
DMP 12 - MAJOR FLOODING & STORMS
DMP 13 – WILDFIRE
DMP 14 - MAJOR LANDSLIDE / ROCKFALL
DMP 15 – EARTHQUAKE
DMP 16 – SEA SURGE / TSUNAMI / TIDAL-WAVE
DMP 17 – EPIDEMIC / MAJOR INFECTIOUS DISEASE OUTBREAK (HUMAN & ANIMAL)
DMP 18 – SPACE DEBRIS, METEORITE, ASTEROID AND COMET IMPACT

HUMAN-INDUCED AND OTHER HAZARDS CATEGORY
DMP 19 – FIRE - STRUCTURAL (FORMAL)
DMP 20 – FIRE - STRUCTURAL (INFORMAL SETTLEMENT)
DMP 21 – CRITICAL INFRASTRUCTURE / NATIONAL KEY POINT EMERGENCY
DMP 22 – MAJOR INCIDENT AT MASS EVENT / STADIUM / ARENA

HUMAN-INDUCED AND OTHER HAZARDS CATEGORY (contd.)

DMP 23 - BOMB THREAT / HOSTAGE-TAKING
DMP 24 – BOMBING / TERRORISM
DMP 25 – BIOLOGICAL / CHEMICAL AGENTS' RELEASE
DMP 26 – CIVIL UNREST / RIOTING
DMP 27 – MAJOR DISRUPTION OF ELECTRICITY SUPPLY
DMP 28 – MAJOR DISRUPTION OF WATER SUPPLY
DMP 29 – MAJOR DISRUPTION OF TELECOMMUNICATIONS & I.T. SERVICES
DMP 30 – MAJOR DISRUPTION OF TRANSPORTATION SERVICES
DMP 31 –MAJOR DISRUPTION OF REFUSE REMOVAL SERVICES
DMP 32 – MAJOR DISRUPTION OF SEWERAGE & DRAINAGE SYSTEMS
DMP 33 – MAJOR DISRUPTION OF HEALTH SERVICES
DMP 34 – MAJOR DISRUPTION OF GOVERNMENTAL SERVICES
DMP 35 – MAJOR DISRUPTION OF COMMERCIAL ACTIVITIES

B.   SLOW-ONSET HAZARDS
DMP 36 – PEST INFESTATION

DMP 37 – DROUGHT / WATER-SHORTAGE / CROP-FAILURE
DMP 38 - GLOBAL WARMING / CLIMATE CHANGE
DMP 39 - DESERTIFICATION
DMP 40 - DEFORESTATION

All the communities in Cape Town have a degree of vulnerability to many of the disaster-causing hazards mentioned above, but especially those communities living in the informal settlements are the most vulnerable to these hazards.   Excluding exposure to the natural disaster hazards which may occur anywhere, the communities living in the proximity of certain installations, industry or transport routes are exposed a greater risk because of this technology.

In terms of capacity to address and therefore reduce risks, there currently is a strong emphasis on preparedness and response planning.   This means that capacity and planning in terms of mitigation and prevention should be strengthened.

The following have been identified as critical Disaster Risk Management issues and should receive priority attention in the IDP :-
▪ Integrating Disaster Risk Management programmess of all entities with those in the IDP;
▪ To maintain risk-specific safety infrastructure and plans e.g. nuclear, fuel storage, etc.
▪ The adequate functioning of a Disaster Risk Management Centre for the City of Cape Town;
▪ To establish disaster prevention / risk reduction programmes that focus on the most vulnerable communities and which endeavor to support sustainable livelihoods.
▪ To design a programme in support of fire protection on the urban fringe;
▪ To refine disaster loss tracking and establish a culture of scientific disaster risk analysis utilising the latest IT technologies availbale in the City;
▪ To establish and maintain multi-disciplinary co-operation and co-operative partnerships to ensure that integrated programmes are being undertaken;
▪ To establish pro-active media liaison and rapid response to media inquiries.
▪ To contribute to preventative and reactive management strategies for the HIV/AIDS pandemic.
▪ Undertake extensive education and awareness programmes on best practice before, during and after disasters.

PRE-DISASTER RISK REDUCTION

Pre-disaster risk reduction is the primary objective of this Corporate Disaster Risk Management plan. All City Departments must pursue disaster-risk reduction and mitigation in all their activities. The pre-disaster risk reduction responsibilities of each Department of the City of Cape Town are described under Section 6 of this Plan.

Prevention And Risk Reduction Strategies

Integrated City-wide strategies must be developed and implemented covering disaster prevention and risk reduction through the following:
▪ Policies and legislation
▪ Economic development programmes / IDP
▪ Risk reduction studies and projects
▪ Training and community awareness
▪ Environmental Impact Assessments
▪ Hazard management
▪ Community education and capacity building

Each Department of the City is responsible for the compilation of pro-active Departmental Disaster Risk Management programmes to support disaster-risk reduction or elimination.

Mitigation Strategies

Integrated City-wide strategies must be developed and implemented covering disaster mitigation through the following:
▪ Insurance
▪ Recovery planning
▪ Early warning systems
Disaster Preparedness

Integrated City-wide strategies must be developed and implemented covering disaster preparedness through the following:
▪ Recovery planning
▪ Emergency and contingency planning
▪ Drills, rehearsals and exercises
▪ Training and exercises
▪ Management and institutional arrangements
▪ Mutaul Aid agreements
▪ Early warning systems

CLASSIFICATION OF DISASTERS

When an event of disaster proportions occurs or is threatening to occur in any part of the City, the Head of the Disaster Risk Management Centre will determine whether the event can be classified as a Local State of Disaster in terms of the DM Act, and, if so, the DRM Centre will immediately:-
• initiate efforts to assess the magnitude and severity or potential magnitude and severity of the disaster;
• alert all the disaster risk management role-players in the municipal area that may be of assistance in the circumstances;
• initiate the implementation the disaster response plan or any contingency plans and emergency procedures that may be applicable under the circumstances of the threat; and
• inform the Western Cape Provincial and National Disaster Management Centres of the disaster and the initial assessment of the magnitude and severity or potential magnitude and severity of the disaster.

When informing the Western Cape Provincial and National Disaster Risk Management Centres, the Head of the DRM Centre may make recommendations regarding the classification of the disaster as may be appropriate – refer to Section 46(1) of the DM Act.

Irrespective of whether a local state of disaster has been declared or not, the City is primarily responsible for the co-ordination and management of local disasters that occur in its area – refer to Section 50(1) of the DM Act.

Whether or not an emergency situation is determined to exist, municipal and other agencies may take such actions under this plan as may be necessary to protect the lives and property of the inhabitants of the City of Cape Town.

Declaration of a local state of disaster: In the event of a local disaster the City Council may, by notice in the Provincial Gazette declare a local state of disaster if existing legislation and contingency arrangements do not adequately provide for the municipality to deal effectively with the disaster or if ther are any other prevailing or special circumstances that warrant the declaration of a local state of disaster – refer to Section 51:1 of the DM Act.
If a local state of disaster has been declared, the City Council may make by-laws or issue directions, or authorise the issue of directions to:-

- Assist and protect the public;
- Provide relief to the public;
- Prevent or combat disruption; or
- Deal with the destructive and other effects of the disaster.

POST DISASTER RESPONSE AND RECOVERY (disaster response plan)

Disaster Response Co-Ordination

The Disaster Co-ordination Team (DCT) shall be convened in the (off-site) Disaster Operations Centre (DOC)when an emergency or disaster has occurred or is likely to occur, in accordance with the following parameters :-

- where the size or seriousness of the emergency seems beyond the capability of a Service, in the opinion of the most senior on-duty official of that Service, the DRMC can be requested to activate the DCT,
- where the Head of the DRMC is of the opinion that it is necessary to activate the DCT in order to effectively manage an emergency which has occurred or is likely to occur, the DCT must convene in the DOC,
- the activating Service shall, via the City's 107 Public Emergency Communications Centre (PECC) and the Disaster Operations Centre's communication section, contact the Disaster Risk Management Duty Co-ordinator who shall immediately arrange to notify the designated members of the Disaster Co-ordination Team (DCT),
- the Disaster Risk Management Duty Co-ordinator shall request the DCT members to meet at the DOC in Goodwood or at any other viable alternate centre should the DOC not be available for whatever reason,
- the DCT will evaluate the situation and advise the Head of the DRM Centre regarding the need for a declaration of a Local State of Disaster, as well as the continued activation or standing-down of the DCT.

All incidents will be managed by the Disaster Co-ordination Team in accordance with the principles and guidelines contained in the City of Cape Town Multi-Disciplinary Incident Management Plan (MIMP) and the DRMC DOC SOP's.

Disaster Operations Centre (Doc)

All the co-ordination and response integration activities by the various responding disciplines will be managed from the City's Disaster Operations Centre (DOC) whose functions and responsibilities are described under DOC's Standard Operationg Procedures.

Drmc Standard Operating Procedures (Sop's)

Standard Operating Procedures were developed by the DRMC for response and relief actions and will be adhered to.

Request for Provincial and national government Assistance

Under certain circumstances, assistance, including SANDF assistance, may be requested from the Western Cape Provincial Disaster Management Centre or the National Disaster Management Centre. The requesting of such services shall not be deemed to be a request that the Provincial Government: Western Cape or the National DM Centre assume authority and control of the emergency in the City unless the emergency has been declared a provincial or national state of disaster when a joint disaster management system will be put in place

.
Recovery and rehabilitation Operations

Post-disaster recovery and rehabilitation operations, which may include reconstruction or redevelopment efforts, will normally take on the nature of special programmes and projects.
The Disaster Risk Management Centre will assist with the identification of needs and will facilitate recovery and rehabilitation operations.   The function or department with the most direct involvement in the operation will take responsibility for project management and delivery.   Project Teams convened for these purposes must report to the CoCT Disaster Risk Management Advisory Forum on a regular basis (as determined by the DRMAF).
In this regard the causal factors of disasters must be addressed and disaster prevention through risk elimination should be pursued in the rehabilitation, reconstruction or redevlopment efforts in order to avoid a repitation of the disaster.

Testing And Review Of The Corporate Disaster Risk Management Plan

The City of Cape Town will regularly review and update all Disaster Risk Management Plans, as required by Section 48 of the Disaster Management Act.   The Disaster Risk Management Advisory Forum shall be responsible for the review of the Corporate Disaster Risk Management Plan on an annual basis.

ABBREVIATIONS

The following abbreviations are used in this DRM Plan :-
CoCT   -   City of Cape Town
DCT   -   Disaster Co-ordination Team
DisRes   –   Disaster Resources Database
DRMAF   –   Disaster Risk Management Advisory Forum
DRMC   –   Disaster Risk Management Centre
DOC   –   Disaster Operations Centre
EMS   –   Emergency Medical Services
IDP   -   Integrated Development Plan
JDRRMC   -   Joint Disaster Risk Reduction Management Committee
JOC   -   Joint Operations Centre
MIMP   –   Multi-disciplinary Incident Management Plan
MPD   -   Metropolitan Police Department
NDMC   -   National Disaster Management Centre
PECC   -   Public Emergency Commincations Centre
PG:WC   –   Provincial Government: Western Cape
SAPS   -   South African Police Service
SANDF   -   South African National Defence Force
SOP   -   Standard Operating Procedure

References

- City of Cape Town Community Fire Safety By-Law
- City of Ottawa Official Emergency Plan
- City of Cape Town Disaster Risk Management Policy Framework
- Constitution of the Republic of South Africa, 1999.
- Disaster Management Act, No. 57 of 2002
- Disaster Risk Management Mutual Aid Agreement
- Fire Brigade Services Act (Act 99 of 1997) as amended.
- Fund Raising Act (Act No 107 of 1978) (FRA)
- Local Government: Municipal Systems Act, 2000 (Act 32 of 2000).

- Major Hazardous Installations Regulations of the Occupational Health and Safety Act
- Marin County Emergency Operations Plan
- Road Traffic Act
- SA National Disaster Risk Management Policy Framework (to be published)
- Social Assistance Act, 1992 (Act no 59 of 1992)

Annexure F
Water Services Development Plan Executive Summary

Introduction

While significant progress has been made since the 2006/07 WSDP Water and Sanitation Services in Cape Town continues to face critical challenges. These include eradicating the backlog of basic sanitation services, achieving the essential targets for reducing water demand, meeting the wastewater effluent standards and thereby reducing the impact on the water quality of urban rivers, asset management and ensuring that infrastructure is extended timeously to meet the development growth demands. Financial sustainability of the service is a particular challenge: ensuring full cost recovery and debt management at a fair tariff, and financing of capital investment.

In order to optimally achieve this and thus meet key policy and legislative requirements, new and effective institutional arrangements and other strategies continue to be put in place. The national Strategic Framework for Water Services, Sept 2003, is a critical policy document setting out the future approach to the provision of water services. Of the national targets set, the most critical for Cape Town are:

- All people are to have access to functioning basic water supply by 2008 (achieved in CCT in 2005/06)
- All people are to have access to functioning basic sanitation by 2010 (CCT are aiming for 2012 due to the extent of the requirement and its unique constraints)
- Investment in water services infrastructure should total > 0,75% of GDP
- Institutional reform of regional water services providers to be completed by 2013, with Water Services managed and accounted for separately
- Annual reporting on key performance indicators to be started.

The guiding document to date has been the WSDP of June 2006. The 2007/08 update, of which this is the Executive Summary, is a product of the current 2007/08 IDP process and will be a Sector Plan in that.

Vision

To become a leader in the provision of equitable, sustainable, people-centred, affordable and credible water services to all.

Critical challenges

Cape Town Water Services faces a number of critical challenges:
- Eradication of basic sanitation services backlog in a fast-track manner
- Meeting basis services expansion to meet the influx
- Intensifying the Water Demand Management Strategy and achieving the targeted or better reduction

- Meeting the Wastewater effluent standards and reducing the impact on the water quality of rivers and water bodies
- Greywater runoff quality in informal settlements
- Timeous provision of infrastructure to meet development growth needs
- Maintenance of infrastructure to ensure continued operation
- High financial requirements
- Financial sustainability of the service and cost recovery and debt management
- Affordability of the Service
- Increased performance and efficiency
- Establishing a new, more effective institutional arrangement

The strategies to face these challenges are dealt with under the following sections.

What is the backlog of water services?

With the exception of the backlog in informal areas and the relatively small but un-serviced rural farm population, service levels generally meet the National minimum standards as required by the Water Services Act 108 (of 1997).

The backlog in basic water was effectively eradicated in 2005/06 when 35 000 informal households received basic water. While 17 050 informal households received access to basic sanitation, the backlog remains at approximately 30 000. This remains a huge challenge given the high unit cost, lack of available land for Human Settlement to accelerate its formal housing provision and ground level / slope /access space constraints.

The challenge then is to provide basic water and sanitation services to new citizens moving into informal areas beyond the emergency level of service and to eradicate the backlog of basic sanitation, targeted over the next 4 to 5 years. Many of these households in informal settlements share the available on-site facilities or rely on the availability of services from nearby established areas. The basic level of service is defined as suitable clean toilet types shared at less than 5 households/toilet and water taps closer than 200m and shared by less than 25 households/tap.

What is the status of supply to higher levels of service?

Service levels to all formal developed areas are generally at the highest level of service: a flush toilet and water connection in-house or on-site. The last 3 black buckets in formal areas were replaced during 2007, meeting the President's requirement.

Cost of eradicating backlogs

In order to eradicate the backlog and to allow for the annual influx the Informal Settlements programme is set out below:

INFORMAL SETTLEMENTS PROGRAMME	07 /08	08 /09	09 /10	10 /11	11 /12	12 /13	13 /14	14 /15	15 /16	16 /17	TOT
Sanitation backlog eradication (5 yrs)	7.2	7.2	7.2	7.2	7.2	0.0	0.0	0.0	0.0	0.0	**36.0**
Sanitation replace buckets etc except chemical (5 yrs)	13.6	13.6	13.6	13.6	13.6	0.0	0.0	0.0	0.0	0.0	**68.0**
Water hh influx sustain	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	**5.0**
Sanitation hh influx sustain	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	**96.0**
TOTAL	**30.9**	**30.9**	**30.9**	**30.9**	**30.9**	**10.1**	**10.1**	**10.1**	**10.1**	**10.1**	**205.0**

The total housing backlog is 265 000 (115 000 informal settlements and 150 000 backyard shacks) according to figures from 2005. A possible programme to eradicate the backlog of the full level of service for water and sanitation over a 20 year period would require the following annual funding:

PROVIDING FORMAL SERVICES FOR THE HOUSING DEVELOPMENT PROGRAMME

Housing backlog eradication (20 years)	R130M
Sustaining the influx	R80M
TOTAL	R210M

This programme is funded through the City's Housing programme. Depending on the speed of implementing this programme, the informal settlement programme would be changed to align the two. The eradication of backlogs is but one of the essential infrastructural requirements of the service. The 3-year capital budget requirements for 2007/8 and 2008/09 2009/10 financial years lies at R746M, R998M and R1,049M.

What is the strategy to eradicate backlogs?

The strategy has been to provide a very basic (emergency) level of service as quickly as possible to about 95% of the approximately 195 informal settlements. The households that do not have access to basic sanitation have access to an emergency level. The emergency service is below the basic level of service in terms of household ratios/service point and includes certain unacceptable toilet types such as black buckets, of which 2 857 still need to be replaced.

The City prescribes to "the water ladder" concept (as proposed in DWAF's "Strategic Framework for Water Services, September 2003"). So while the City's priority is to first provide an emergency level of service to all households in all settlements, it is also extending the coverage and density of services to the basic level. Upgrading on an annual basis for informal areas on developable land is proceeding as funds are obtained. A basic service level is being aimed for (the standard being defined by the ratios mentioned above, ideally opting for pour-flush, anearobic or flush toilets as appropriate). "Greenfields" housing projects are undertaken to receive residents moved from undevelopable land.

Cape Town's current plans based on current staffing are to eliminate the sanitation backlog by 2012 (behind the National target), but additional manpower resources are being sourced to accelerate implementation.

What is the status of all water infrastructure?

Existing infrastructure is often stressed significantly during peak periods. The need for new infrastructure due to growth is also pressing. The limited financial situation in the City versus the high demand for new housing has created a scenario where the City is not in a position to maintain existing infrastructure and to provide the required bulk infrastructure for connection of new developments. There is not enough money to address both these issues.

A process under the leadership of the Corporate Development Directorate was started to address the situation in a multi-disciplinary way. A partnership approach with developers was started to ensure that development could continue. Development contributions are determined and agreed for each node or Corridor to fund some of the required infrastructure. There are still a number of challenges such as obtaining bridging finance, and implementation and capacity constraints in the City. The areas where water and sewer infrastructure are severely stressed and are in need of significant upgrades include:
- West Coast / Parklands development corridor
- De Grendel / N7 development node
- Northern development corridor
- Bottelary development corridor
- Fast-track housing projects (e.g. N2 Gateway)
- Maccassar / AECI development node

The existing infrastructure, particularly the sewer system, is increasingly in a poor condition due to under-provision for essential maintenance and replacement of aging infrastructure over several years. Major pipe collapses have occurred over the past year where such pipes are in urgent need of extensive repair or even replacement. The bulk water system in the northern areas is under stress during peak periods. The programme for implementing the augmentation scheme in this area has been budgeted for. The EIA process for the works has also been delayed 6 months and will only be finalised by 30 June 2007.

Effective management

The new organisational structure, under revision since 2001, is reaching finalisation currently, with new staff rapidly being appointed in the top levels and current staff to be placed by 30 June 2007. However, there are still critical staffing shortages to address at operational level due to the manpower drain that has occurred over the last few years. Internal optimisation of structure and process, inter-departmental coordination, integrated planning, as well as Employment Equity are being given high priority in conjunction with the placement process. It is uncertain at this stage when the new institutional arrangements will be fully functional. An additional staff budget from 2007/08 onwards to alleviate the critical staff shortages has been provisionally approved and budgeted for. In particular,

funds to appoint several Financial staff including accountants and staff focused on increasing income has been approved.

Socio-economic profile

The 2001 Census recorded the size of the metropolitan population at 2,9M people living in 759 765 households. The City's 20007/08 Integrated Development Plan put the 2005 number of households at 847 000, with a population estimate of 3,2M. This, together with a future estimated HIV-incidence rate of 5 % (i.e. one in every 20 people are estimated to be HIV-infected), could constrain future population growth even further, together with an expected reduction of rural immigration.

Cape Town faces rising development challenges. During the past decade poverty and unemployment have almost doubled, the housing backlog has more than doubled, drug-related crime has tripled, HIV prevalence has increased tenfold and public transport has deteriorated. This is despite significant economic growth (4% annual increase in GGP), improvements in the provision of basic services (water, waste, electricity) and rising tourist numbers.

Decades of distorted development in the city has manifested in highly skewed distribution of income and wealth. In Cape Town there is a trend towards rising poverty (from 25% in 1996 to 38% of households living below or marginally above the household poverty line in 2005). This raises the issue of affordability of the service.

Affordability of the Service

A free basic service is provided, in the form of the first 6 kl/month water supply and first 4,2kl of sewerage conveyance and treatment free of charge to all consumers per month. The City's Indigent policy allows for a R20 grant in account reduction/month to qualifying ratepayers. Approximately 220 000 formal households currently qualify based on a property value less than R100 000 (2000 General Valuation), With the 2006 General Valuation the value of properties that qualify for the Indigent Grant has changed to R199 000 from 2007/08 onwards .

The lower steps of the water and sewer tariffs, and the zero fixed sewer charge and R20 grant for property values less than R199 000 are mechanisms to ensure that water and sanitation is affordable to the poor and indigent. Under conditions of no plumbing leaks, they would consume a relatively low quantity of water. The Integrated Leaks Repair Project and the Fixit Project, initiated at the end of 2005, are major initiatives to ensure that these household plumbing leaks are minimized and therefore that the cost of these services is affordable for them. The fixed charge applicable to sewerage based on property value has been found to be indefensible legally and will fall away in 2007/08.

Affordability of the service will be viewed over the long term. Costs can be reduced in the short term but to the detriment of the maintenance of assets and replacement of aging infrastructure and to an effective WDM Strategy resulting in higher tariffs in the longer term. Higher than inflation increases in tariffs will be required to ensure the sustainability of the service.

The water conservation and demand management strategy, besides being necessary due to the Western Cape being a water scarce region, will also reduce the cost of the service in the long term by postponing new resource and bulk infrastructure schemes. Reductions in water consumption in the higher steps will result in the need for upward adjustments in the tariff steps but, on their own, will not result in an increase in the average water and sewer bill to the consumer.

In terms of the asset management strategy there will be increased costs and therefore higher tariffs in the short term but the strategy will ensure service affordability in the long term. The Financial and Institutional Strategy will result in improved performance of the Water Services Provider and therefore should result in a reduction in unit costs.

The City's Debt Management and Credit Control policy, updated in 2005, has been revised for 2007/08, will be augmented by concerted efforts of Water Services to manage debt and ensure income due is received.

Service level profile

There are currently a total of approximately 656 800 formally registered customers in the City with full level of service. This customer base is broken down as follows:

Customer Type	Number
Commercial	15 680
Industrial	5 044
Department	10 567
Miscellaneous	8 952
Domestic*	616 557
TOTAL	**656 800**

* Includes cluster housing and sectional title.

Domestic customers include customers in cluster housing and sectional title. Customers dwelling in backyard shacks number about 150 000 (2005 figure).

As at 2005 there were 115 000 informal customers. With an estimated 847 000 households with 115 000 in informal settlements, the total number of customers served with a full level of service is 732 000. 115 000 and 85 000 customers in informal settlements receive a basic level of service for water and sanitation respectively.

Water resource profile

Surface water represents 440,5 Mm^3/year, or 97,1% of the total yield. The City currently obtains 70 to 75% of its raw water requirements from DWAF and the remainder from its own sources. Approximately 15% of the raw water requirements are obtained from sources within the CMA. Groundwater resources make up 6,64 Mm^3/year yield, representing only 1,46% of the total yield.
The total bulk water treated for 2004 was 849Ml/day, dropping to 772Ml/day for 2005 as a result of the restrictions triggered by the drought and effective WDM measures and increasing again in 2006 to 805Ml/day. With the current implementation by DWAF of the Berg River Scheme to be completed at the end of 2007, the existing water resources supplying water to Cape Town will be sufficient at least until 2013.

To reduce over-exposure to climate change and the potential decrease in system yield due to environmental reserve requirements, the strategy is to diversify water resources to lessen the dependence on surface water schemes. Schemes to be pursued under this strategy are Table Mountain Group Aquifer, other ground water schemes, desalination, and treated wastewater effluent re-use.

As part of this diversification strategy the City will continue to strengthen its partnership with the Department of Water Affairs and Forestry in the process of reviewing and updating the Western Cape Systems Analysis ("Reconciliation" Study). This study which is currently being considered for approval, evaluates the supply potential and attempts to reconcile it with the demand including options for water trading from agricultural surplus to city demand shortfall.

Water conservation and demand management

One of the essential steps for the City is to reduce water demand through the implementation of Water Conservation and Water Demand Management (WC/WDM) initiatives in order to ensure a sustainable supply of water for the future and to ensure financial efficiency in the supply of water services.

A number of studies have all clearly illustrated that WC/WDM is the most feasible solution to ensure adequate water resources for the city in the near future. It has been estimated that WC/WDM can postpone the need for a new water-resource augmentation scheme between five years and fifteen years although this does not mean that bulk infrastructure can be postponed in growth areas such as the northern areas.

The implementation of WC/WDM can also result in significant long-term financial savings to the City as well as the public by reducing water losses, reducing treatment costs and postponing large capital infrastructure. The City's approach to water demand management is based on three broad principles: water is a strategic, precious and scarce resource; there should be no wastage of water; and all water used should be measured and accounted for.

A comprehensive eight-year WC/WDM strategy during has now been developed. It is intended to submit this to Council by the end of 2006/07. The framework of action of the strategy is divided into an enabling section and an implementation section. The implementation goals are as follows:

Goal A: CCT must by 2010 reduce and maintain the non-revenue water to below 15% of the total average demand and within accepted international benchmarks.

Goal B: Water wastage by consumers should be reduced and maintained to below 2% of the total demand by 2012 and most consumers should achieve acceptable water efficiency benchmarks by 2016.

Policy E: Reduce the projected potable water demand by 20% by the year 2012 and conserve Cape Town's Water Supply. (Planning for future water and sewer infrastructure is currently based on the City achieving this goal).

The enabling goals defined in the strategy are as follows:

Goal C: CCT must by 2009 ensure and maintain ongoing effective management systems and implement Integrated Water Resource Planning in all decisions regarding water resources augmentation, bulk infrastructure development and water efficiency projects.

Goal D: CCT must adopt WC/WDM as one of the key water service delivery strategies, and must give priority to its implementation and ensure an ongoing adequate enabling environment.

The two most critical components of the implementation of the WC/WDM strategy are the reduction of the water losses and the re-use of treated effluent water as an additional resource. During the last two years a number of successful WC/WDM projects had been implemented, most notable projects were the M'fuleni Integrated Leak Repair Project, the Fixit Project, the education campaigns, treated effluent recycling and various pressure management projects.

The focus on these projects has reduced non-revenue demand. In addition the tariffs for treated effluent re-use are being rationalised and should result in additional income. The additional income is intended to be ring-fenced for use on WC/DM projects.

The budget cuts during the 2006/2007 financial year have however severely restricted the implementation of the WC/WDM strategy. The budget spent to date towards the comprehensive WC/WDM strategy is R 20 million. The capital budget for WC/WD has been increased substantially being R22.5M, R21.5M and R25.5M for 2007/08, 2008/09 and 2009/10 although this falls below what is needed for the full implementation of the strategy as shown in the table below:

Year	Capital (R M)
2007/08	23 410
2008/09	52 447
2009/10	69 046
2010/11	63 402
2011/12	63 828
2012/13	34 487
2013/14	30 955
2014/15	31 041
2015/16	32 413
2016/17	32 470
Total	433 498

Water demand has decreased from an average of 850 Ml per day in 2003/04 to 796 Ml per day in 2005/06, 28% below the predicted "Unconstrained Water Demand Curve" and 13% below the "Low Water Demand Curve". This is a result of various factors including the 10% water restrictions and the WDM projects implemented. While there is no room for complacency these are positive signs which

indicate that with more financial and human resources the "Low Water Demand Curve" could be sustained.

Wastewater effluent and the impact on the water quality of rivers and water bodies

Certain Wastewater Treatment Plants do not comply with DWAF effluent standards due to aging infrastructure over a number of years. Where investment has taken place, benefits are notable from the improved works. This in turn improves the re-use potential of wastewater effluent.

The volume of wastewater treated over the previous 3 years was:

Year	Flow ML	% Change on previous year
2003/04	196 214	0.2%
2004/05	196 498	0.1%
2005/06	198 891	1.2%

The wastewater flows into the treatment works have not increased substantially. This can be attributed to:

❑ Water demand management initiatives
❑ The implementation of grey water and other systems by residents as a result of the drought of 2004/05

DEADP accepted the scoping report for increasing the WWT capacity at either Melkbos or Potsdam to cater for growth in the area. A consultant has been appointed to undertake detailed studies on potential environmental impacts in terms of the EIA process. The studies should be completed towards the end of the year.

The EIA for the proposed works to serve the northern region (Fisantekraal) has been approved. Tenders have been received for the detailed design and contract administration. However no appointment could be made as there have been delays in purchasing the land.

An Environmental Management System (EMS) has been set up at Potsdam Wastewater Treatment Works that integrates treatment process requirements and operational control with environmental protection. While there were plans to extend it to other wastewater plants this has been shelved as certification will not be approved without compliant effluent.

Although it was previously an urgent requirement to adhere to the proposed 2010 standards, the implementation of these standards is currently being delayed by DWAF and each application for upgrading is being assessed on its merit and the reserve determination of the receiving water body.

Depending on adequate financial and human resources, it is envisaged that 81% of treated wastewater effluent will be compliant with current DWAF standards (1984 standards) by 2012.

The mean % compliance is arithmetic mean of (Suspended Solids + Chem Ox Demand + Ammonia + E Coli). The Nitrate is excluded as a poorly performing works has a low nitrate which would improve % compliance whereas the "real" compliance is actually worse and ortho-Phosphate is not included as very few works have to comply with the future P standard.

The mean compliance was approximately 76% as at December 2006, up from 71 % as at December 2000, with 77% being the target for 2007/08.

Stormwater runoff from polluted sources (industrial dumping and settlements in catchments) often cause more severe pollution of water bodies than the treated effluent does. A working arrangement has been set up with Catchment Management to ensure the impact of sewerage overflows or effluent problems is minimised and does not worsen the environmental health further.

In general, the next five or six years will see a peaking of the upgrading requirements for essential wastewater treatment and it is anticipated that adequate funding will be made available to undertake the necessary improvements, maintain effective service delivery and minimise the impact on the environment.

Grey Water in Informal Settlements

Conveyance of grey water, which has been a problem in informal settlements, is receiving attention for health and amenity reasons. A Pilot project run in Khayelitsha was not conclusive and further attention needs to be paid to this issue.

Water services Infrastructure profile

The replacement value of the water and sewer infrastructure, determined in May 2003 as part of the Section 78(1) evaluation, was about R17,5 Billion, made up as follows:

1 Water Supply Infrastructure	Replacement Value R mil
Dams and catchments	932
Treatment Works	1 021
Water Reticulation	8 073
Water Pump Stations	314
Reservoirs	1 268
Depots (shared)	30
Sub Total	11 638
Wastewater Infrastructure	
WW treatment works	1 420
Sewer Reticulation	4 159
Sewer Pump Stations	284
Depots (shared)	30
Sub Total	5 893
Total	17 531

Previously maintenance of infrastructure was mostly reactive. Water Services is implementing an asset management strategy AmiP (Asset Management Improvement Programme) and the SAP Plant Maintenance Module, and this situation is gradually being turned around. The department has

achieved Stage 3 (Basic Asset Management). This improvement process is being driven through the Reliability Engineering (formerly Asset Care Centre) which was established in March 2004. Reliability Engineering was being managed through a bureau arrangement with Pragma whose contract has been completed now that a skills transfer process to train municipal staff to take over the function has taken place.

The water and sewer reticulation network makes up R12.2 (approximately 70%) of the total R17.5 billion replacement value. In terms of minimizing the long term costs of owning the assets, therefore, the replacement programme for these networks is very significant. Therefore condition records of the networks need to be dramatically improved. Meticulous records of burst mains and blockages, on a Metro basis, has been introduced and maintained from June 2006. The Technical Operations Centre (TOC) is keeping statistics which are presented monthly. The TOC systems are work in progress, but progress is being made with IT and ERP on the portal systems.

From these records, investigations and tools such a CCTV cameras for sewer pipes, a comprehensive pipe replacement programme will be developed. It is likely that the Programme will identify that more funds will need to be allocated to maintenance of infrastructure and replacement of aging infrastructure.

ISO Certification

The Bulk Water branch has previously set the standard by achieving full ISO certification on ISO 9001:2000 and thereafter maintaining it as certified by independent audits. Other branches are all striving to achieve this standard over the 5-year planning horizon. This together with the ISO 14001 and the Risk Management programmes to be implemented will ensure that quality is assured and risks are minimised.

Water balance

The 12 month moving average of unaccounted for water for bulk and reticulation was 19.2% as at the end of December 2006.

The distribution of water demand is as follows:

Domestic	56.9%
Domestic Cluster	7.0%
Municipal	4.9%
Commercial and Industrial	18.3%
Other	12.9%

Water services institutional arrangements

The decision to set up a separate Water Services Authority (WSA) and a ring-fenced Water Services Provider (WSP) was reconfirmed by Council in June 2004. The process has been delayed due to the delays in the transformation process.

The key to addressing the challenges that Cape Town Water Services face and achieving Water Services' vision and goals is to ensure that Water Services is structured financially and institutionally to achieve enhanced operational and financial performance. The foundation of the Water Services Strategy is therefore to effectively separate the Authority and Provider roles and to structure the

provider in a way that achieves this. This will result in sustainable funding and sustainable institutional mechanisms. The process of separating the WSA and WSP has still to be defined.

Accountability for the ring-fenced WSP will rest with the Director: Water Services who will then expected to deliver on the city's strategic goals through a Service Provision Agreement (SPA) and a 3-year rolling business plan. The WSDP and annual updates thereof, will form the basis for the 3-year rolling business plan.The new arrangement is expected to contribute a great deal towards ensuring sufficient funds are available, while maintaining an affordable business model.

The City is also committed to developing alternative service delivery and infrastructure funding or investment mechanisms. Objective 7.2 under the Strategic Focus Area 7 "Good Governance and Regulatory Reform" from the 2007/08 IDP (Draft 15.03.07vx2.2) states "Enhance service delivery through exploring alternative service delivery mechanisms"

Customer service profile

All the necessary infrastructure is in place to ensure an adequate quality of service to formal households customers. All customers receive water that is fully treated. There are mechanisms in place to attend to customer complaints and queries. Integrated statistics on burst water pipes and blocked sewers have been recorded since June 2006.

Financial profile

The key financial strategies for CCT in the IDP are:
- Reducing salary costs to acceptable levels, taking into account the City's new operating model and transferring savings to improve the maintenance of assets;
- Reducing the cost of servicing long-term debt with innovative methods of borrowing and capital financing;
- Reducing the dependency on cross-subsidisation from tariff-based services to within acceptable norms;
- Maintaining rate and tariff adjustments within national norms and guidelines, ensuring the national and local economy are not undermined;
- Making adequate provision for free basic services for the poor, to ensure that there is no further marginalisation of poorer communities or individuals through the entrenchment of the indigent policy;
- Preparing realistic income budgets with adequate provision for non-recovery to ensure the expenditure reflected for each year can be fully covered by cash receipts;
- Ensuring that adequate cash reserves are maintained to cover legislated funds and provisions.

Implementing these financial strategies in the context of the implementing the WSA and WSP arrangements will go a lot way to putting Water and sanitation Services on a sustainable path.

A summary of the overall 5-year capital requirement in Rand million for the service is shown in the table below:

	2007/08	2008/09	2009/10	2010/11	2011/12
Reticulation	404.1	313.0	190.7	172.7	131.5
WWT	133.0	174.3	145.3	163.4	185.0
Bulk water	77.8	357.6	579.1	426.0	389.0
WDM	22.5	21.5	25.5	14.1	12.8
Support	3.0	3.5	4.0	27.2	27.7
Water Meter repl.	16.0	16.0	16.0	18.3	19.2
Informal settlements	56.4	55.6	47.1	38.0	39.9
EAMS	31.3	55.2	40.2	42.0	42.0
Scientific Services	2.3	1.4	1.3	1.7	1.7
TOTAL	**746.4**	**998.1**	**1049.2**	**903.4**	**848.7**

Note: the first 3 years correspond with the 3 year capital budget.

This will require a significant increase in funding through EFF which historically stands at approximately R160 mil. The City will attempt to increase the allocation from MIG so as to reduce the effect on EFF. This capital budget is required to ensure the sustainability of the service.

The City recognises the urgent need to upgrade and extend infrastructure. This is highlighted under the IDP Strategic Focus Area "Sustainable Urban Infrastructure". In order to ensure that this becomes a reality it is committed to "improve leveraging of available funds without compromising the Council's ability to sustain service delivery" (part of the Public Infrastructure Investment Programme under the Objective 2.7 -Strategic Focus Area No. 2). Depending on the effect of an aggressive Water Demand management Strategy and a re-evaluation of the approach to treated effluent standards the high capital requirement may be able to be reduced.

The projected operating budget (in R Million) is shown below:

Year	Budget
2006/07	2 611
2007/08	2 953
2008/09	3 214
2009/10	3 540
2010/11	3 866
2011/12	4 167

This is based on the following assumptions:
City growth: 1.50%
Inflation: 5.00%
Demand growth: 2.00%

Based on the above projected capital and operating expenditure the tariffs will increase above inflation over the next 5 years The total debt owed to Water Services is R 2 billion and growing annually. This reduces Water Services ability to afford the necessary capital programmes to maintain existing infrastructure and develop new infrastructure for the growth in the City. Recent debt management initiatives have proven successful but more effort needs to be put into this.

The Integrated Leaks and the Adhoc Leaks Project being driven out in low income areas will contribute significantly to reducing the increase in debt as well as the writing off of bad debt that

resulted from the leaks on private residential properties . As mentioned under "Institutional Arrangements" the Water Services Provider will be structured in a way that enhances operational and financial performance.

Note
This document has been compiled in accordance with DWAF's WSDP guideline headings

F1- Water Demand Management Plan

Introduction

The availability of Water Resources and adequate bulk water and wastewater infrastructure to meet the growing water demand in the City of Cape Town (CCT) is a limiting constraint to the social upliftment and economic prosperity of the city. As early as 1995, City of Cape Town committed itself to a 10% saving on the historical demand growth of 4 % per annum. An Integrated Water Resource Planning (IWRP) study carried out in 2001 also indicated that various Water Demand Management and Water Conservation (WC/WDM) initiatives are the most feasible water augmentation options to meet the growing water demand for the city.

In 2001 CCT developed a WC/WDM policy and strategy based on the outcome of the IWRP study. A number of WC/WDM projects were implemented and some of the projects such as the Khayelitsha Pressure management project were very successful and received wide recognition. The implementation of the strategy was however not sustainable and due to numerous institutional challenges the initial commitment and resources to WC/WDM were significantly reduced during 2003, 2004 and again during 2006. This revised WC/WDM strategy seeks to overcome these challenges, build on experience gained and adapt to the city's approach in light of current socio-political, environmental and urban management imperatives.

The purpose of the WC/WDM strategy is to ensure the long-term balance between available Water Resources and water demand, to postpone the need for expensive capital infrastructure projects for as long as it is economically viable and to minimise water wastage.

The main report documents and motivates the implementation of the new comprehensive and sustainable strategy and consists of the following four sections:
- **Section A**: Gives a background to the strategy and describes the current water situation in the city of Cape Town and the current status regarding WC/WDM
- **Section B**: Describes both the generic and specific concepts and theory that the strategy is based on.
- **Section C**: Evaluates the economic, social and environmental benefits of WC/WDM and establishes the motivation for the scope of the strategy. A demand analysis is also carried out and analysed in order to determine the opportunities of WDM.
- **Section D**: Describes the framework of action to be implemented. The framework of action is divided into three components: Goals, Implementation objectives and action plan and Enabling objectives and action plan.

This executive summary gives a generic overview of some of the elements of the strategy describes some of the key findings and lists the most important recommendations. Interested stakeholders however are encouraged to read the full WC/WDM strategy document.

Need for WC/WDM

The need of a WC/WDM at CCT is not limited to the immediate water resource shortages and includes the following:
- Reconciling supply and future demand. The IWRP study of 2001 as well as the Reconciliation study of 2006, had clearly indicated that WC/WDM measures are the most feasible options for reconciling supply and future demand.
- Water resource and environmental protection. Through WC/WDM, the environment can be protected by limiting the water abstracted from rivers and also reducing the pollution discharged through the wastewater system and reducing the pollution from contaminating the water supply.

- Financial viability of the Water Services. WC/WDM can contribute significantly to ensuring the financial viability of water service delivery in CCT in the following ways:
  - Reducing the direct operating costs by reducing Non-Revenue Water (NRW)
  - Reducing the operating cost of revenue demand (not significant)
  - Increasing income from consumers through more equitable tariffs
  - Increasing income by capacitating non-paying consumers to pay for water (reducing consumption to affordable levels)
  - Postponing capital infrastructure requirements

  The estimated net financial benefit of implementing WC/WDM over the next 10 years is estimated at approximately **R 1694 million**.

- Assist in alleviating the current problems of the wastewater system. The wastewater treatment in CCT is currently under severe stress due to lack of capacity. There are a number of treatment plants where hydraulic loading is the key constraint and WC/WDM can play a significant role in alleviating problems and reducing costs.

Consequences of not implementing WC/WDM

The consequences of not implementing the entire WC/WDM strategy can be significant and will depend on the extent of implementation. Some of the important consequences are as follows:

- Risk of the total water demand exceeding available supply, which will require the city to impose long-term severe water restriction that can effect economic development for the region.
- Premature development of the next water augmentation scheme at significant cost.
- Threaten the aim of achieving sustainable and affordable service delivery to low-income areas.
- The existing loss of income to Council will continue to increase. Current levels of loss of income could be as high as R 205 million per annum (20% of total demand at an average selling price of R3.50 /kl).
- The existing direct cost of distribution losses will continue to increase. Current financial losses due to distribution losses are estimated as R 15 million per annum. (Assuming 10% of total demand and R0.50 / kl)

Opportunity of reducing wastage and increasing efficiency

From the demand analysis and from the various discussions with various key role players it is estimated that the implementation of WC/WDM can achieve the following savings:

- Reduction of water wastage by 111 Ml/day
- Reduction of inefficient water usage by 147 Ml/day
- A further reduction of approximately 65 Ml/day due to effluent treatment recycling and other alternative Water Resources.
- Reduction in the normal natural growth rate due to new consumers by 25 %. For example, if the normal growth rate required by new consumers and economic development is 3.09% p.a. it can be reduced to 2.32% p.a.

The combined opportunity for reducing the total demand (based on 2004 figures) through WC/WDM is estimated as 323 Ml/day. This can reduce the 2004 demand from **797 Ml/day to 474 Ml/day**. The following table illustrates where the various opportunities exist within each sector.

Table 1:Opportunities in reducing demand – Ml/day

Domestic(household)				Domestic(outside use)			
Efficient Usage	Ineffici. Usage	Leaks	Total	Efficient Usage	Ineffici. Usage	Leaks	Total
55%	38%	7%	100%	73%	20%	7%	100%
189.7	132.4	24.2	346.3	84.3	23.1	8.1	115.4
Industrial				Commercial / business			
Efficient Usage	Ineffici. Usage	Leaks	Total (Ml/day)	Efficient Usage	Ineffici. Usage	Leaks[1]	Total
85%	10%	5%	100%	65%	25%	10%	100%
32.3	3.8	1.9	38.0	62.7	24.1	9.6	96.4
Municipal				other consumers			
Efficient Usage	Ineffici. Usage	Leaks[2]	Total (Ml/day)	Efficient Usage	Ineffici. Usage	Plumbi.Leaks[2]	Total (Ml/day)
65%	25%	10%	100%	65%	25%	10%	100%
22.4	8.6	3.4	34.5	47.3	18.2	7.3	72.8
UAW + bulk losses				Summary - Total			
Leaks bursts	Backgr. Leaks	Commercial	Total	Efficient Usage	Ineffici. Usage	Leaks	Total
30.00%	20%	50.00%	100%	55.08%	26.40%	18.53%	100%
55.8	37.2	93.0	185.9	438.7	210.2	148	796.5

The activities and the target savings that can be achieved are illustrated in the table below.

Table 2: Activities that will achieve the savings envisaged.

	Inefficiency component	Max Saving	% savings target	Target Savings (Ml/day)	Activity to achieve saving	Primary necessity
1	Reduction of NRW (leaks only)	93.0	60%	55.8	· Comprehensive reticulation management programme	• Financial sustainability of Council
2	Inefficient water consumption in low income areas	52.2	75%	39.2	Comprehensive management programme in low income areas	• Financial sustainability of Council • Affordability for consumer
3	Inefficient water consumption of business / industry	77.0	80%	61.6	· Behavior change · Retro-fitting · Leak repair	• Water resource consideration
4	Inefficient water consumption of domestic, affluent consumers	135.6	75%	101.7	· Behavior change · Retro-fitting · Leak repair / flow limiter · Effective tariff	• Water resource considerations
5	Treated effluent and alternative water resources	72.0	91%	65.5	· Effluent recycling plants · Well and bore holes · rain harvesting · Unconventional resources	• Water resource considerations
	Total	429.8		323.8		

The role of WC/WDM on water resources

In order to determine the possible impact of WC/WDM, the High Water Requirement (HWR) and the Lower Water Requirement (LWR) future projections developed by the reconciliation study are adopted, but with the assumption that the LWR does not already incorporate WC/WDM

To emphasise the role of WC/WDM Figure 1 illustrates the existing demand and the water availability, (EEWE, including Berg river scheme) with the assumption of not implementing any further WC/WDM. There are three curves illustrated each starting at a different point on the existing curve and all adopting the HWR growth rate. The figure indicates that if we assume that the impact of the water restrictions is sustained and existing water consumers do not return to their previous habits, then a new water augmentation is required during 2013 (light blue curve). If however we assume that existing consumer return to their previous habits prior to 1999, then the next water augmentation scheme would have been required by 2002. (red curve)

The reconciliation study made the assumption that the total demand will soon recover to the level before the restrictions and has therefore adopted a future projection with the HWR starting on the actual 2004 demand. The position adopted in the WC/WDM strategy however is different and assumes that most of the savings achieved by the water restrictions and the WC/WDM projects to date can be maintained. This implies that in order to calculate the impact of the long-term strategy that both the HWR and LWR will be projected from the current 2006 demand levels. The maximum potential savings on the demand will then be superimposed in order to determine a new future projection with WC/WDM. It should be noted that the potential savings form WC/WDM calculated based on the 2004 base figures are reduced in order to allow for the savings achieved to date.

Figure 4:**Impact of past restrictions and WC/WDM**
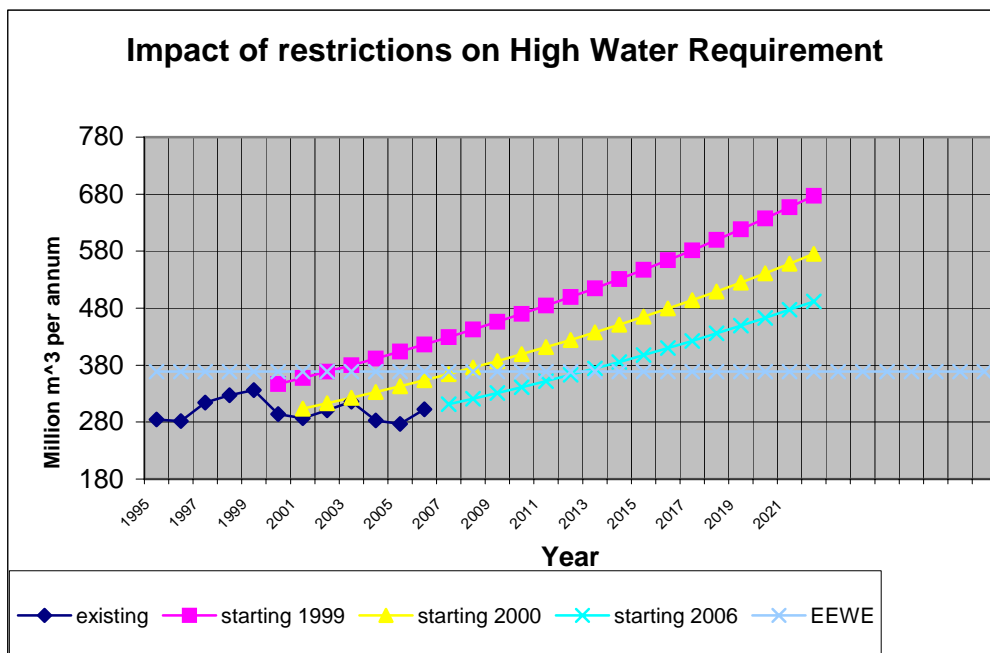
Figure 2 illustrates the proposed impact of the W/WDM strategy assuming a HWR. The diagram illustrates that with the proposed WC/WDM strategy the next water augmentation can be postponed until 2026.
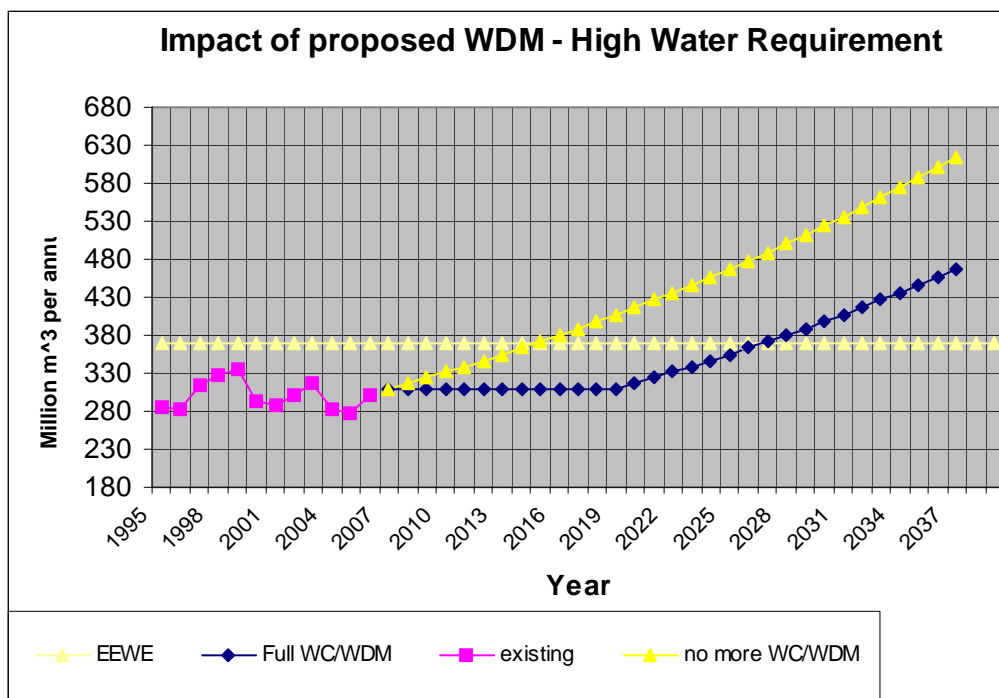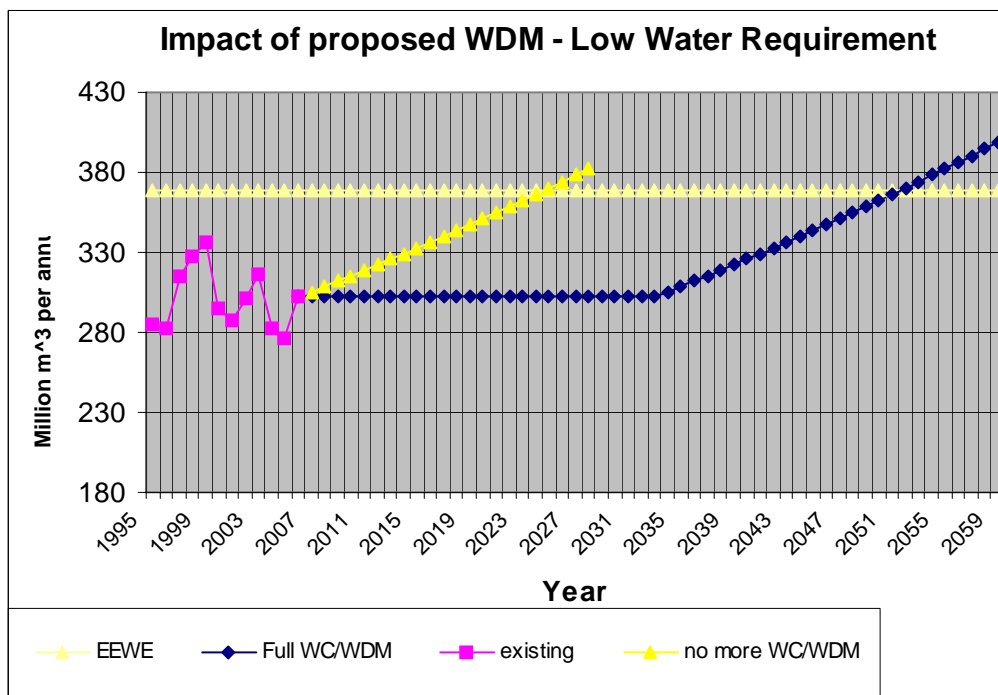
Figure 5: Impact of proposed WC/WDM on HWR

Figure 3 illustrates the proposed impact of the W/WDM strategy assuming a LWR. The diagram illustrates that with the proposed WC/WDM strategy the next water augmentation can be postponed **until 2051**.

Figure 6: Impact of proposed WC/WDM on LWR

The table below illustrates all the possible variations on the possible effect of WC/WDM on the need for a new water augmentations scheme.

Table 3: Impact of WC/WDM on need for new water resources

Impact of WC/WDM	Year new supply augmentation will be needed	
	Low Water Requirement	High Water Requirement
No WC/WDM	2016	2008
Sustaining efficiency from restrictions	2020	2013
10 yr WC/WDM progr.	2051	2026

The results indicate quite a significant potential for WC/WDM in postponing new water resource augmentation. The calculations however are based on a number of assumptions that need to be verified. A number of decision makers are also sceptical on the potential role of a sustained WC/WDM programme because it is a new function in water resource planning. Wide scale retro fitting of plumbing fittings to residential homes has for example never been carried out in South Africa and a number of the proposed WC/WDM activities require a new paradigm and extensive commitment by a the Council. In order to overcome these constraints and also to verify the number of assumptions made in the calculations, it is proposed that CCT makes the following undertaking:-

Proposed Undertaking: CCT will commit over the next three years to implementing and monitoring a comprehensive WC/WDM strategy. Within this time no decision should be taken regarding further water augmentation schemes in order to verify the full potential of WC/WDM. After five years, the full impact and potential of WC/WDM must be clearly demonstrated by CCT and re-evaluated. All assumptions made in the current analysis on the role of WC/WDM will be tested and adequately researched.

Framework of action

Based on the fundamental principles of WC/WDM as well as the policy adopted in the previous WC/WDM strategy by CCT, five goals have been identified and represent the overall WC/WDM policy. Goals, A,B and E relate to the implementation objectives that will result in the direct reduction of water demand. Fourteen implementation objectives have been developed under the various goals. These objectives are illustrated in the table below.

Goal A: CCT must by 2010 reduce and maintain the Non-Revenue water to below 15% of the total average demand and within accepted international benchmarks.

Goal B: Water wastage by consumers should be reduced and maintained to below 2% of the total demand by 2012 and most consumers should achieve acceptable water efficiency benchmarks by 2016.

Goal E: Reduce the projected potable water demand to an average growth rate of no more than 1% pa. for the next 10 years and conserve Cape Town's Water Resources.

Table 4: Implementation /Water Demand reduction objectives

Policy	Objective number	Description
Goal A	A1	Reduce and maintain low levels of water losses through the reticulation system
	A2	Reduce and maintain low levels of non-revenue demand by consumers
	A3	Adopt and implement proactive O & M measures
	A4	Reduce and maintain low levels of billing and metering losses
Goal B	B1	Promote the efficient use of water to consumers and customers
	B2	Regulate and enforce the prevention of wastage of water
	B3	Ensure the efficient use of water in new connections and developments
	B4	Introduce more equitable tariffs and informative billing
	B5	Assist and capacitate consumers to be water efficient, including the introduction of leak repair and retrofitting projects
	B6	Reduce and maintain low levels of inefficient water use by Council
Goal E	E1	Maximise the use of treated effluent
	E2	Promote alternative Water Resources and technologies
	E3	Conservation of existing Water Resources
	E4	Ensure the quality of treated effluent is of suitable standards

The enabling action plan consists of two goals and seven objectives as illustrated in the table below. Goal C relates mainly to ensuring adequate information and Goal D relates mainly to ensuring adequate resources and capacity to implement WC/WDM.

Goal C: CCT must by 2009 ensure and maintain ongoing effective management systems and implement Integrated Water Resource Planning in all decisions regarding Water Resources augmentation, bulk infrastructure development and water efficiency projects.

Goal D: CCT must adopt WC/WDM as one of the key water service delivery strategies, and must give priority to its implementation and ensure an ongoing adequate enabling environment.

Table 5: Enabling WC/WDM objectives

Policy	Objective number	Description
Goal C	C1	Establish appropriate district management areas and monitor the unaccountable for water
	C2	Ensure adequate information and policies to support decision-making
	C3	Ensure all decisions are supported in terms of Integrated Resource Planning (IRP).
	C4	Monitor the impact of WC/WDM measures and KPI
Goal D	D1	Ensure adequate financial resources
	D2	Ensure adequate human resources and processes
	D3	Ensure adequate transparency, stakeholder buy-in and commitment

Budget

The proposed budget allocation for WC/WDM over the next ten years, starting during the 2007/08 financial year, is illustrated in Table 6 follows. More detail on how the budgets are allocated for each of the more important programmes and projects is illustrated as Table 7.

Table 6**:** Budget for WC/WDM

Year	Operating	Capital	Total x 1000
2007/08	R 19,581	R 27,167	R 46,748
2008/09	R 40,417	R 56,078	R 96,495
2009/10	R 57,125	R 79,260	R 136,385
2010/11	R 54,692	R 75,884	R 130,576
2011/12	R 52,616	R 73,004	R 125,620
2012/13	R 26,872	R 37,284	R 64,155
2013/14	R 18,771	R 26,045	R 44,816
2014/15	R 16,138	R 22,391	R 38,530
2015/16	R 24,685	R 34,250	R 58,935
2016/17	R 24,727	R 34,308	R 59,035
Total	R 335,624	R 465,670	R 759,195

Table 7: Costs of main projects

Objective number		Programme	Budget x R 1000										
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Objective A1	A1.1	Pressure reduction	4200	3000	2900	2900	50	50	50	50	50	50	**13300**
	A1.2	Establishment of reticulation leak detection task teams	1400	1400	1000	1000	1000	1000	1000	1000	1000	1000	**10800**
Objective A2	A2.1	Comprehensive water supply management projects in previously disadvantaged areas	2000	15700	30620	30676	30879	21142	7485	1485	1485	1485	**142958**
	A2.2	Fix-it leak in low income areas	1293	2300	2630	3010	3446	3948	3446	3010	2630	2300	**28012**
	A2.3	Implementation of debt management policy	1920	2220	3640	3640	3640	3640	3640	3640	3640	3640	**33260**
Objective A3	A3.2	Preventative maintenance	300	700	1150	1150	1150	1150	1150	1150	1150	1150	**10200**
Objective A4	A4.2	Meter management /replacement programme	1000	4200	4050	4000	4000	4050	4000	4000	4000	4000	**37300**
Objective B1	B1.1	Consumer awareness campaign	1410	2010	2410	7350	2710	2710	2710	2710	2710	2710	**29440**
	B1.2	Consumer education campaign	0	2040	2040	1790	1790	1590	1590	1590	1590	1590	**15610**
	B1.3	School education	1150	2300	2300	2300	2300	2300	2300	2300	2300	2300	**21850**
	B1.4	Special events	745	845	895	945	995	1045	1095	1145	1145	1145	**10000**
	B1.7	2010 Soccer World cup	0	500	2600	1500	0	0	0	0	0	0	**4600**
Objective B2	B2.2	enforcement of by-laws	80	305	5	150	5	5	5	5	5	5	**570**
Objective B5	B5.1	Implement a plumbing retro –fit programme	0	500	2300	5000	5000	5050	5000	5000	5000	5000	**37850**
	B5.4	Implement an on-going support programme for large consumers	0	520	1070	1070	870	870	870	870	870	870	**7880**
Objective E1	E1.1	Recycling of treated effluent - infrastructure	23490	34000	50200	47000	51000	0	0	0	0	0	**205690**
Objective E2	E3.1	Support working for water programme	0	950	950	950	950	950	950	950	950	950	**8550**
Objective C1	C1.1	Establish District management areas	1600	1500	1500	0	0	0	0	0	0	0	**4600**
Objective C2	C2.1	Management Information Systems	500	10000	10000	1000	1000	1000	1000	1000	1000	1000	**27500**
	C2.2	Upgrading the telemetry system, remote communications (cell)	0	0	200	6400	6530	6730	2030	2030	2030	2030	**27980**
Total			**41088**	**84990**	**122460**	**121831**	**117315**	**57230**	**38321**	**31935**	**31555**	**31225**	**677950**

Progress to date

The following is brief summary of the progress on the WC/WDM initiatives undertaken during 2005/2006 and 2006/2007.

- Treated effluent distribution systems: R18M in Blaauwberg Area to serve industry and farms, as well as an innovative pilot dual network system in the new residential development of De Grendel. The estimated additional treated effluent supplied between 2005 and 2007 is an annual average of 14.55 Ml/day.
- Sustainable domestic leak repairs focusing on more than 12 000 indigent homes, including skills transfer to communities: R2,7M with estimated reduction in consumption of 3 Ml/day.
- Reduction of Non Revenue Water by approximately 34 Ml/day. It is not clear however, what the reduction of real losses versus commercial losses is.
- Pressure reduction schemes that have greatly reduced nightflows and leakage at Umfeleni and Guguletu: R1,2M with estimated reduction in water supplied of 2.5 Ml/day (reduction is a combination of reticulation losses and consumer demand)
- Retrofit of water efficient showerheads issued and installed by Eskom. The estimated reduction in water supplied is 1.3 Ml/day.
- Communication, awareness and educational drives: R1,8M

The overall combined impact of the WC/WDM initiatives and water restrictions is to reduce the total demand by approximately **50 Ml/day** based on the 2004 base demand.

Conclusions

Both the IWRP study undertaken by CCT during 2001 and the recent reconciliation study undertaken by DWAF have clearly identified WC/WDM as the most feasible solution to reconcile the future water demand. The following extract from the reconciliation study emphasises the need for WC/WDM:

" The long lead time required to implement a supply-side intervention precludes its selection as the first intervention to be implemented prior to 2013. It is therefore imperative that additional WC/WDM interventions (beyond the CCT's long-term strategy) be studied and implemented as the first phase of the development path. If the CCT is unsuccessful in implementing its WC/WDM strategy and programme, and assuming that the HWR Curve is followed, then the supply will exceed requirement in 2011 and the City will face an increased possibility of having to impose water restrictions on its consumers."

To avoid water shortages and ensure sustainable and affordable Water Services CCT has no choice but to implement a very comprehensive WC/WDM strategy.

The current method of forecasting future demand by DWAF and CCT is considered very inaccurate and can result in a wide range of demand forecasts. Such a wide range of forecasts is having a significant impact on the need for the next augmentation and the financial consequences are enormous. The difference in the need for a new Water Resource augmentation (assuming WC/WDM is implemented) is 14 years depending on whether the High Water Requirement or Low Water Requirement will be achieved. Internationally there are more accurate models based on "end-use" demand analysis that can provide a greater level of confidence in demand forecasting.

Key recommendations
The following are some of the key recommendations of the WC/WDM strategy:
1) CCT must commit to implementing WC/WDM as the preferred Water Resource augmentation option. This commitment should be reviewed after an initial period of five years.
2) WC/WDM should be submitted for consideration to become a Mayoral Flagship project.

3) Attention should be given to address all of the proposed WC/WDM related programmes and projects described in the strategy.
4) An approximate budget of R 759 million should to be allocated to WC/WDM over the next ten years. Most of the budget required can be allocated from savings achieved from WC/WDM or from extra revenue generated from the water restrictions tariff or the sale of treated effluent.
5) The 2007/2008 budget and the rolling 3- year budget allocated to WC/WDM activities as part of the Water Services budget, should be revised in accordance with the budgets identified in this strategy.
6) WC/WDM activities should be intensified over the next two years in accordance with the strategy, in order to ensure that the total water demand does not suddenly increase to the levels prior to the introduction of the water restrictions.
7) All revenue from the sale of treated effluent should be ring-fenced and allocated towards the WC/WDM budget requirements.
8) The Water Restriction levy should be renamed the Water Conservation levy and all revenue collected from this should be allocated towards the costs of the WC/WDM strategy.
9) Finance and Water Services should agree on a method to estimate the financial impact of the various WC/WDM initiatives. The net savings should then be allocated towards the budget requirements of the WC/WDM strategy.
10) The strategy should be regularly reviewed to incorporate the latest available information and to re-prioritise the implementation of various programmes.
11) A new forecasting model based on "end-use" demand analysis should be developed in conjunction with an appropriate Management Information System and research.
12) Attention should be given to the human resource requirements to enable the successful implementation of the WC/WDM strategy.
13) The effluent treatment strategy should be accelerated and implemented fully over the next five years in order to assist in generating adequate income to subsidise other WC/WDM related activities.

Annexure G
Municipal Safety Strategy

Description   :

The desired outcomes that the Metropolitan Police wish to achieve are:

- Reduce the incidence of crime, including contact crimes and drug and alcohol related crimes by means of pro-active visible policing.
- Target and reduce traffic offences by adopting a focussed approach towards such offences.
- Target and reduce general anti-social behaviour by enforcing the City's by-laws and efficient utilisation of the City's CCTV network
- Promote ethical police conduct
- Reduce waiting periods for learner/driver licence tests

The function exists to enhance the general safety and security of all residents of and visitors to Cape Town. Results that will be measured:

- Arrest record for both serious and minor crimes
- Notices issued for traffic offences
- Notices issued for by-law offences
- Turnaround time between application and appointment for learner/driver licence tests.

The most important task at hand is to stabilise the organisation and to operationalise the strategy.

Vision

The people of Cape Town can live and work in a safe and secure environment that is conducive to economic growth, development and tourism.

Legal Requirements

The Cape Town Metropolitan Police Department was established in terms of the SAPS Amendment Act, Act No 68 of 1995. It derives its operational mandate from the SAPS Act and relevant traffic legislation. Section 64E of the Act defines the Department's main functions as:

- Crime Prevention
- Traffic Policing
- Enforcement of Municipal By-Laws

National, Provincial and Local Government strategies, including National Policing Standards are considered in the functioning of the Department. These are:

- The City Of Cape Town IDP 2006/2007
- The City Of Cape Town Service Delivery and Budget Implementation Plan 2006/2007
- The Annual Police Plan
- Re-alignment Strategy: Cape Town Metropolitan Police Department
- The National Crime Prevention Strategy (NCPS)
- The People Orientated Sustainable Strategy (POSS) of the SAPS
- The Ikapa Elihlumayo strategy of the Provincial Government of the Western Cape

- The People Orientated, problem solving and community safety strategy of the Provincial Government of the Western Cape
- The Western Cape Joints Instructions
- The Road Traffic Management Corporation (RTMC) strategies

Key Strategic issues and challenges

- Finalisation and approval of the Department's organisational structure.
- The achievement of organisational parity within the Department.
- Integration of the City's By-Laws. The compilation and approval of a standard set of by-laws that is applicable to the entire metropolitan area, is required to ensure effective by-law enforcement
- Joint operational command – CCTV: this matter is unresolved. It refers to the 'China Model on Integrated Policing. It will allow the SAPS full command and control of the CCTV Centre and execution of operationalisation of the Metro Police, through co-ordination. The City Of Cape Town and the Department of Community Safety explored the option of Joint Operational Command in 2005 through a task team under chairpersonship of the current City Manager and HOD, Department of Community Safety. Approval of the initiative needs to be obtained.

Critical Success factors

- The filling of critical posts and funding attached thereto is of utmost importance to enable the Metro Police to meet the growing operational demand in a constant changing society.
- The implementation of a standardised shift system to ensure that all members previously attached to the City Police, Traffic department and Law Enforcement have a standardised number of working hours. Currently there is a 12 hour and 8 hour working hour system as per the separate contracts previously issued.
- Training and development of members. The continuous development of the Departments' human capital is required to meet the complex needs of the modern policing environment. The development and expansion of the Departments own training facility is also a requirement.
- Invest in latest equipment and make use of modern technology.
- Adhere to disciplinary measures for own members.

Strategies

The core elements of the Department's Metropolitan Safety Strategy are as follows:

- **Traffic Policing:** The City has a legislative mandate to oversee Traffic policing and is committed to increase road and pedestrian safety through targeted road policing that is aimed at decreasing road accident fatalities within the greater Cape Town. This will be achieved by means of the implementation of the Arrive Alive strategy linked to local traffic enforcement programmes during peak seasons, traffic management plans to decrease traffic congestion linked to targeted locations, targeted traffic policing operations and increased traffic policing visibility in identified residential areas.
- **Crime Prevention:** the Metro Police Department will utilize its resources to create a safe environment through a range of crime prevention initiatives which will include visible policing, closed circuit television (CCTV) surveillance, as well as an array of social crime prevention programmes. The continuous and visible presence of police men and women reassures the public and reduces the levels of fear of crime. This in turn contributes to the actual safety of a particular area as well as the quality of life of the residents. In support of the broader focus on vulnerable groups we are committed to public safety and to discourage the occurrence of crimes against women and children.

There is a correlation between crime and drug and alcohol use/abuse, therefore the Metro Police Department will endeavour to prevent violent crimes by combating drug and alcohol related behaviour and the illegal possession of firearms. Detecting incidents of crime, disorder and other emergencies, as well as environmental factors that may contribute to such incidents constitutes an important aspect of the Department's crime prevention mandate. Here, the CCTV Network has proved to be a significant contributor to the safety and security of the people of Cape Town. It is widely accepted that the societal causes of crime need to be adequately addressed if crime levels are to be reduced. This can be achieved by changing the environment in which crime occurs and by intervening in the social conditions that are the underlying causes of crime. The Social Crime Prevention programmes are designed to intervene at this level.

Crime prevention is a shared responsibility and the Metro Police will therefore strive toward the forging of partnerships with communities, non-governmental organizations and the SAPS.

- **Enforcement of City By-Laws:** The City has a legislative mandate to develop and implement By-Laws that will contribute to the creation of a healthy and safe environment for its residents. All By-Laws that promotes general safety and quality of life will be enforced. Research indicates that crime increases when minor offences such as drinking in public, aggressive begging and unauthorised dumping are not dissuaded through effective By-Law enforcement. It is widely accepted that the quality of life of residents increases in areas where By-Laws are properly enforced. This strategy will be addressed by vigorous enforcement of By-Laws that impacts on the combating of general anti-social behaviour in identified areas and the effective enforcement, on a metropolitan wide basis, of the By-Laws that impact on the quality of life of residents.

Geographical scope

The Department's Service areas correspond with the City's Service Delivery areas. These are:

            Area 1   : Southern
            Area 2   : Mitchell's Plain
            Area 3   : Klipfontein
            Area 4   : Central
            Area 5   : Khayelitsha
            Area 6   : Tygerberg
            Area 7   : Northern Panorama
            Area 8   : Eastern

Type of business

Enforcement related. Inclusive of driving licensing and roadworthiness of vehicles.

Product and Service offering

The Department provide a wide range of safety and security related services designed to improve the quality of life of all residents.

Description of customers

All residents of and visitors to Cape Town

Sources of revenue

Fines issued for traffic violations, by-law offences and licensing fees.

Use of technology

Continuous expansion of the City's CCTV network to enhance detection capabilities.
Labat provides and maintains the City's traffic enforcement camera systems and operates a service centre on behalf of the City for the processing of traffic fines. The TCS computer system is used for the processing of all fines.

The ONE thing that will make this business successful over time.

Stabilisation of the organisation.

What strategic alliances will we form?

With Government, both National and Provincial. With Business for funding and support.

Strategies: What will make the function successful over time?

Establish community trust in the Service.

Strategic goals and objectives (Outcomes)

- Increased road and pedestrian safety
- Improved traffic and licensing service delivery
- Increased compliance with the City's By-Laws
- Improved quality of life for all residents
- Reduction in the levels of crime and anti-social behaviour
- Enhanced service delivery and operational effectiveness

Key Deliverables (Outputs)

- Increase visible policing and public transport enforcement initiatives.
- Adopt a zero tolerance approach towards traffic offences.
- Increase the issuing of notices for By-Law offences.
- Expansion of the City's Closed Circuit Television in identified areas.
- Increase levels of proactive visible policing.
- Improve participation on Community Police Forums within the Cape Town Metropolitan Area.
- Addressing the causes of anti-social behaviour.
- Educational and life skills empowerment of youth and identified communities.
- Support families' dealing with difficulties in their life in respect of drug-based crime (rehabilitation)
- Engender a sense of community (shared responsibility) through participation and involvement at the community level.
- Support the Provincial Safer Schools Program.
- Increase productivity, effectiveness and efficiency of the department.
- Enhance/improve public image of Metro Police.
- Build an enabling institutional framework to sustain an ethical policing environment.

Resources to be used to achieve outcomes

- Capex :   R4,343,946 (Draft 07/08)
- Opex :   R204,925,469 (Draft for 07/08)
- Projected income for 2007/08: R157 650 000
- Current staff establishment

Law Enforcement   : 471
Traffic   : 656
Municipal Police   : 785
Civilian   : 325

Total	**: 2237**

Key strategic programmes, projects and initiatives

- Traffic and pedestrian safety programme.
- Traffic and licensing service improvement programme.
- City's by-law enforcement programme.
- Crime prevention programme.
- Crime and disorder reduction partnership programme.
- Educational and empowerment social crime prevention programme.
- Departmental service delivery improvement programme.
- Introduction of additional driving licence test centres in Philippi, Khayelitsha, Ottery and Mitchell's Plain.

Key Performance Indicators, with Benchmarks

- Percentage of community satisfaction
- Expansion of the City's CCTV network with 27 cameras
- Improved participation on 57 active Community Police Forums
- Number of arrests per month.
- Number of specialised MPD operations per month.
- Number of Traffic Control Points held per month.
- Number of Operation Reclaim roadblocks held per month.
- Number of roadblocks aimed at DWI held per month.
- Number of fines issued for traffic offences per month.
- Number of by-law related complaints attended to per month.
- Number of by-law contravention notices issued per month.

G1- Municipal Police Plan

INTRODUCTION

This document sets out the annual strategy and objectives of the Cape Town Metropolitan Police Department which it is committed to delivering during the period of 1 July 2007 to 30 June 2008.

The Cape Town Metropolitan Police Department is required by law to develop and implement an annual police plan which sets out its priorities and objectives for the following year.

The strategic direction of the 2007/08 Annual Police Plan results from extensive consultation with the community, research institutions and other stake holders in the safety and security environment as well as intensive strategic planning in line with the City's overall development objectives.

It also needs to be mentioned here that the Safety and Security structure of the City of Cape Town was recently redesigned by political mandate. This resulted in the existing Traffic and Law Enforcement branches being separated from the Metropolitan Police Department and now functioning in terms of direct reporting lines to the City's Executive Director for Safety and Security.

MESSAGE FROM THE OFFICE OF THE CHIEF

The Cape Town Metropolitan Police Department is now in its 5th year of existence and is continuously striving to improve its service delivery to the people of Cape Town in order to make the City safer for all who live, work and play here.
This year, the Department will embark on a bold strategy that will focus on effectively addressing anti-social behaviour, restoring order on the City roads and contributing to the quality of life of all residents. Through our community orientated approach, we will strive to enhance public confidence and reassurance in the Department's ability to deal effectively with crime and disorder.

THE CURRENT SITUATION

Public perception of crime has grown more and more negative in recent years and has now reached a point where it is dominating the majority of public discussions and calls for action. According to the Institute of Security Studies, it is particularly the past six months that have "seen public fears growing about the development of a new crime wave".

Although official crime statistics show an overall decline in certain key crime categories, disturbing trends still exist in respect of organised crime such as cash-in-transit heists, car hijacking, car theft and drug dealing.

What is particularly disturbing is the nature and extent of violence associated with crime in South Africa as well as the seemingly lack of fear from criminals when committing their daring deeds at any time of day or night and sometimes in full view of dozens of potential witnesses.

Equally disturbing is the fact that the highly popular and extremely addictive drug, Tik (methamphetamine) has once again managed to tighten its grip on the City. This cheap and easy to manufacture drug has now become the drug of choice in Cape Town and abuse thereof is spreading rapidly in all communities.

The abovementioned negative perception and growing fear of crime are no doubt fuelled by the general disregard for acceptable norms of behaviour in our society. In Cape Town, anti-social

behaviour is at the order of the day with offences like loitering, drinking and being drunk in public, aggressive begging and urinating in public occurring continuously and across the City.

In addition, minor offences that does not necessarily relate to "anti-social behaviour" but which are still undermining general order in the City, are committed on a daily basis by both the otherwise law abiding residents and criminal elements alike.

On the City's roads there also exist a number of challenging situations. Traffic regulations are not respected and sometimes completely ignored. Offences range from "talking on a cell phone whilst driving, speeding, general reckless and inconsiderate driving and parking violations."
It is in this environment that the Metropolitan Police must aim to pursue meaningful and results orientated service delivery.

THE WAY FORWARD – STRATEGY AND OPERATIONAL PLAN

STRATEGY

This year, the Department will embark on a bold strategy that will focus on executing its three key functional areas namely, traffic enforcement, by-law enforcement and crime prevention in such a way that these areas compliment each other and collectively contribute to a safer City.

To this end, one must take cognisance of the fact that the proper and focused enforcement of City By-Laws (specifically those that relates to anti-social behaviour) can indeed contribute significantly to the prevention of crime. By-Law enforcement per se will thus not be presented here as an isolated tool to increase City revenue or improve general orderly conduct, but rather as a significant contribution to improving the quality of life of residents and thus is a key element of the Department's crime prevention mandate.

The basis of the plan will thus be a definite focus on petty offences which include minor crimes and by-law offences while simultaneously adopting a "no nonsense" approach towards all traffic offences.

- OPTIMUM VISIBILITY AND REASSURANCE

It is a well known fact that perception of safety is to some extent influenced by the level of police visibility which can also contribute to deter crime and anti-social behaviour. Police visibility should, however, not only be seen as "patrolling the streets" and providing a "presence" but rather as "getting actively involved" by arresting perpetrators for minor crimes, addressing other petty offences and dealing effectively with community concerns. In this way, the Metropolitan Police will be able to contribute to public reassurance and confidence.

- QUALITY OF LIFE ISSUES

As stated in the introduction to the strategy, the Department will embark on an extensive campaign focused on minor crimes and by-law offences that relates to anti-social behaviour. It is these offences that impact on the daily lives of residents, contributing to growing fears of crime and creating an environment for lawlessness and crime to flourish.

This year will see the Metropolitan Police clamping down on perpetrators of such offences. These include:

- Drunkenness
- Drinking in public
- Riotous behaviour

- Urinating in public
- Gambling
- Noise
- Truancy
- Graffiti
- Driving whilst under the influence of alcohol
- Using abusive language
- Drug abuse (especially by youth)

Alcohol-related offences are of particular concern here as the high levels of alcohol abuse in the City contribute directly to violent crime. Reviewing of premises licenses, acting on transgressions with regard to trading hours, under-age-sales, drunkenness and drinking in public will thus be dealt with decisively this year.

The Department will negotiate with the Directorate of Public Prosecutions in order to ensure effective prosecution for the expected increased arrests for minor crimes.

- TRAFFIC POLICING

Effectively addressing the culture of non-compliance on the City's roads is a key deliverable of the Plan. Here, the Department will continue to direct resources towards national road safety strategies, including the Arrive Alive Campaign that is aimed at causality reduction over the festive season.

The Department will also work closely with partner agencies to ensure a coordinated approach is maintained towards road casualty reduction measures, which focus on education and enforcement initiatives.

A no nonsense approach towards the general disregard for traffic rules and regulations which is particularly prevalent in the taxi industry will be adopted and vigorously pursued. These include overloading and Abnormal Load Transportation as well as offences relating to roadworthiness and licensing.

In addition, speed enforcement will be expanded and the unit capacitated to deal effectively with the threat in high accident locations and identified risk areas for pedestrians.

- CONTRIBUTING TO NATIONAL AND PROVINCIAL STRATEGIES

People Orientated Sustainable Strategy (POSS) of the SAPS:- The Department will continue to support the SAPS in its implementation of the People Orientated Sustainable Strategy. Here the Metropolitan Police will actively contribute to the SAPS' strategic direction in combating drug trafficking, vehicle theft, improving safety in high crime areas, combating taxi and gang violence and crime against women and children. The Department will contribute to these initiatives by means of focused deployment of its Special Operations Unit as well as targeted patrols.

People Orientated Problem Solving and Community Safety Strategy of the Department of Community Safety:- Here the Metropolitan Police will contribute to combating the root causes of crime by integrating its efforts with that of the Department of Community Safety and the SAPS.

- INNOVATIVE POLICING

During the 2007/2008 financial year, the Cape Town Metropolitan Police Department will explore the possibility of implementing innovative policing strategies aimed at reducing crime, traffic violations and by-law offences in the City. The following are examples of strategies that will be considered for possible implementation:

- Criminal Data Base Checks:

This strategy has contributed much to placing wanted criminals behind bars in a number of major City's around the world. It basically requires that as far as possible, the identification particulars of all perpetrators of petty offences be checked against the Central Criminal Database to determine if the offender is wanted on other charges.

The strategy is based on the belief that criminals are extremely likely to also commit petty offences which of cause present law enforcement officials with a golden opportunity to arrest criminals when they are "off duty".

The department can employ this strategy by expanding the availability of the Morpho Touch technology as well as to ensure the availability if information on the most recent "Wanted Persons" lists to be made available to patrol officers.

- *Buy and Bust* operations to target drug dealers:

The so-called Buy and Bust operations or *traps* in terms of Section 252 A of the Criminal Procedure Act is an extremely effective way to gather strong evidence against drug dealers. The method has been employed with great success in the past and could be used to target "Tik dealers".

- Double Barrel roadblocks:

A secondary roadblock designed to target those motorists who deliberately try to avoid the main roadblock.

- Reverse *Sting* Operations targeting clients of sex workers:

This is also a *trap* operation in terms of Section 252A of the Criminal Justice Act and targets the clients of sex-workers. Clients of sex-workers are generally not targeted in South Africa although it is believed that a significant percentage of clients are involved in other crimes as well, thus presenting an opportunity to law enforcement officials to establish whether such persons are wanted for other, perhaps more serious crimes.

- Ongoing Research

The Department will conduct regular research projects on innovative policing strategies, best practices and problem solving policing.

ADDRESSING THE ROOT CAUSES OF CRIME

- Social Crime Prevention:

It is widely accepted that the societal causes of crime need to be adequately addressed if crime levels are to be reduced. This can be achieved by changing the environment in which crime occurs and by intervening in the social conditions that are the underlying causes of crime. The Social Crime Prevention programmes are designed to intervene at this level. This year will see a continuation of the Departments Social Crime Prevention initiatives with the focus being on sustainability.

- Crime Prevention through Environmental Design

    The Department will actively contribute to the development and adoption of a policy that will govern the implementation of safe design guidelines.

    Addressing the root causes of crime will require an integrated working approach and here the Metropolitan Police will endeavour to establish close working relationships with the relevant Provincial Departments, City Directorates and the SAPS.

CLOSED CIRCUIT TELEVISION SURVEILLANCE (CCTV)

    A master plan for the future roll-out of the City's CCTV network will be developed and the network's role as an integrated part of the Department's crime and disorder prevention strategy will be reviewed to ensure optimalization of this valuable asset.

    Further consideration will also be given to the Integrated Policing Model which will allow joint operational control of the CCTV network with other law enforcement agencies.

SECURITY AT MAJOR EVENTS

    The Department will work closely with other organs of State in the safety and security arena in order to ensure effective participation in integrated planning and enforcement efforts aimed at achieving maximum safety during the City's hosting of major events. To this end, the Department will participate as required, in the collaborative planning efforts in respect of the 2010 FIFA Word Cup.

OPERATIONAL PLAN
SECTION A : OPERATIONAL OBJECTIVES

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR
1) Increase pedestrian and road safety.	a) Targeted speed enforcement in identified high accident locations as well as in areas regarded as high risk for pedestrians.	% Reduction in Pedestrian fatalities and reported injuries
	b) Continuous review of available technology which might increase effectiveness of speed enforcement.	% Reduction in Road accidents
	c) Peak traffic enforcement programme. Dramatically increase traffic policing visibility and enforcement with emphasis on moving violations during peak hours.	
	d) Maintain high visibility traffic enforcement.	
	e) Increase number of safety awareness initiatives	
2) Increase overall safety in the public transport environment.	a) Maintain high frequency of Vehicle Control Points.	Number of accidents involving public transport vehicles

	b) Maintain high frequency of Roadblocks.	
	c) Specialised MPD operations aimed at violations committed by Taxi operators.	Number of accidents involving people utilising public transport system
	d) Investigate increasing the staff compliment of the Taxi Unit.	Number of people using public transport system
	e) Reconstitution of the N2 Priority Committee (Joint Enforcement Task Unit).	Number of incidents at public transport facilities

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR
	f) Prepare a schedule of management plans for Public Transport Interchanges.	
3) Improve the quality of life of all residents and visitors to the City by reducing levels of anti-social behaviour	a) Develop and implement a comprehensive standard set of by-laws applicable to the entire Cape Town metropolitan area.	Achieving positive results on community survey re.% Increase of perceived prevalence of anti-social behaviour.
	b) Focus on the detection of petty offences including by-law offences and minor crimes.	
	c) Vigorous enforcement of the City By-Laws aimed at curbing general anti-social behaviour e.g. urinating in public, drinking on beaches, use of abusive language etc.	
	d) Target offenders of minor crimes and increase arrest rate for such offences.	
	e) Strengthening of Municipal Courts through effective court administration processes relating to drafting of court roll.	
4) Improve general order and encourage orderly conduct of residents and visitors.	a) Vigorous enforcement of City By-Laws that are aimed at improving general conduct of residents and visitors e.g. by-laws relating to illegal dumping, run down building, exhibiting goods on side walk, parking by-laws, informal trading, illegal structure, etc.	% Increase of perceived prevalence of orderly conduct. (Perception Survey)

Number of fines issued |
| 5) Ensure pro-active policing towards land invasion. | a) Maintain the implementation of the Department's Anti-Land Invasion strategy.

b) Expansion of the Anti-Land Invasion | Reduced number of incidences of successful land invasion. |

	Unit.	

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR
6) To increase the Department's capacity to detect incidence of traffic violations, by-law offences, crime and other emergencies.	a) Develop an integrated CCTV Master plan to direct future expansion of the network. b) Review locations of existing cameras to increase effective coverage specifically with regard to preparations for the 2010 Soccer World Cup. c) Review criteria used for decisions on where CCTV network is to be rolled out. d) Review operationalisation of camera response to ensure optimum functionality.	% Reduction in the incidence of crime and emergencies where the CCTV network cameras are installed
7) Reduced turnaround time between applications and appointments for learner/driver testing.	Establish new Driver Testing Centres in Mitchell's Plain and Ottery.	Reduced turnaround time.
8) Improve community safety by means of a collaborative crime prevention effort with the SAPS.	a) Take part in targeted joint operations in identified high risk areas in support of POSS objectives and the SAPS' strategic direction. b) Maintain high levels of visibility in targeted crime and disorder "hot spots". c) Re-vitalisation of an equestrian unit in order to provide highly visible policing presence in the City centre.	% Reduction of incidences in all crime categories

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR
9) Reduce drug related crime with a specific focus on the spread of TIK/Speed.	a) Targeted patrols in accordance to Crime Threat Analysis. b) Conduct regular "stop & searches" of suspected "clients" and "dealers". c) Explore the possibility of conduction Section 252A (Trap) operations either jointly with SAPS or as Departmental operations – aimed at gathering evidence against and arresting drug dealers.	% reduction in the growth of drug related crimes
10) Active participation in		

all active Community Police Forums (CPF's) in the metropolitan area.	a) Designate senior members to attend meetings of and contribute meaningfully to all active CPF's in the metropolitan area.	% Consistent attendance of Senior members designated.
	b) Ensure continuity in member participation in CPF and related forums. c) Focus on meaningful contribution and not only attendance of meetings.	% Satisfaction of the community with the contribution of Metro Police (Perception Survey)

11) Crime prevention through targeted educational awareness initiatives	a) Implementation of the following Social Crime Prevention Programmes:
	
	• Silent Witness
	  Targeting domestic violence.
	• Me As I Am Free Drug Free
	  Drug abuse prevention programme delivered at high priority schools.
		% Level of awareness of initiatives (Perception Survey)

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR

	• It's Up To You
	  Target gang related activities. Conflict resolution and life skills programme.
	• Stay Safe
	  Child safety during festive season
	• Youth 4 Life
	  Youth safety committee in schools
	• Victim Empowerment
	  Training and empowerment camps.
	• Community Patrol Initiative support
	  Support identified community patrol initiatives by assisting with capacity building.
	
	b) Contribute to the development and implementation of a policy on Crime Prevention through Environmental Design (CPTED).	

12. To ensure safety at all events (incl 2010)	a) Safety and Risk management Act b) Prepare for implementation of National Safety Events Act c) Continuity of service delivery d) Films and events unit (proposal for reservist metro police unit) e) Participate in joint security planning processes for 2010 a) Reduction in damage or loss of city's	Number of violations of the Act relative to number of events (Ratio)

13. Safe-guard City's assets by providing an effective security service.	assets b) Protection of construction and service delivery staff (to reduce reliance on outside security companies)	Reduction in number of damage or loss of city's assets Reduction in Rand Value of damage or loss of city's assets

SECTION B : ORGANISATIONAL OBJECTIVES

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR
14)Promote an ethical policing environment	a) Implement and maintain Departmental Anti-Corruption Strategy. b) Conduct Anti-Corruption Awareness programmes. c) Vigorous implementation of corrective measures. d) Provide the Civilian Oversight Committee with the required cooperation.	Reduction in incidence of corruption. Results of independent survey conducted amongst members of the CIVOC.
15)Ensure sustainable service delivery	a) Conduct regular research projects on policing best practices in order to ensure continuous results driven service delivery. b) Maintain an adequate support structure for members.	Maintain acceptable levels of service delivery
16) Ensure increased revenue for sustainable service delivery	a) Investigate the possibility of sub-contracting MPD members to City Improvement Districts (CID's). b) Increase collection of outstanding monies owed to the City for traffic violations. c) Review contractor performance for the processing of traffic fines	% Increase in revenue

OBJECTIVES	KEY ACTION / OUTPUT	MEASURE/INDICATOR
17) Provide continuous training to members in order to enhance operational effectiveness.	a) Introduction of Sensitivity Training programme for all members. a) Delivery of training programme aimed at ethical police conduct in line with the Department's Anti-Corruption Strategy. b) Ongoing in service training in respect of disciplinary procedures.	Number of members undergone training.

Annexure H
Health Plans

H1- CAPE TOWN METRO DISTRICT HEALTH PLAN

Description of the function/sector

This Cape Town Metro District Health Plan is a joint plan developed by the management team of the Provincial Metro District Health Services (MDHS) and City Health.
Developing the plan has resulted in a far better integration of the City's Integrated Development Plan, the Provincial Health strategic plan and Health Care 2010. Linked to these are the broader Millennium development goals, the National Department of Health five year priorities as well as the Provincial iKapa elihlumayo strategy which has a particular focus on social capital formation.

Vision

The Health Care 2010 vision: "Equal Access to Quality Care"

Joint vision with the City Health / Provincial Metro District Health Services: "Together We Can Deliver Better Health Care for Cape Town!"

Legal Requirements

The National Health Act, No. 61 of 2003. Most sections of the Act came into effect on 2 May 2005.

Key strategic issues & challenges

The purpose of the District Health Plan (DHP) is to improve the delivery of quality PHC services through improved co-ordination and management. The DHP is therefore a tool that allows managers and staff to better plan, implement, monitor and evaluate PHC services. On a practical level, it allows the district and the region to work to the same plan, to integrate activities more closely and to clarify responsibilities. It also allows management to access resources for these improvements through increasing efficiency and aligning planning and budget cycles.

Critical success factors/risks/dependencies
- Good leadership and management
- Motivated management
- Communication and co-ordination
- Appropriate established structure and culture
- Adequate feedback systems
- Sufficient resources

Resources to be used to achieve outcomes
- Capex: R24 million City Health 06/07
- Opex: R340 million for City Heath 06/07
- People: 1,280 for City Heath

Strategic goals & objectives (Outcomes)

The purpose of the District Health Plan (DHP) is to improve the delivery of quality PHC services through improved co-ordination and management. The DHP is therefore a tool that allows managers

and staff to better plan, implement, monitor and evaluate PHC services. On a practical level, it allows the district and the region to work to the same plan, to integrate activities more closely and to clarify responsibilities. It also allows management to access resources for these improvements through increasing efficiency and aligning planning and budget cycles.

Key strategic programmes, projects and initiatives

- Development of District Health Service
- Implementation of full package of care at District Hospitals
- Community home based care
- Chronic non-communicable disease
- HIV and AIDS
- Tuberculosis
- Women's Health
- Child & Adolescent Health
- Trauma & emergencies
- Quality of Care
- Social Capital
- Healthy Environment

H2 - HIV, AIDS and TB
Description of the function/sector

Over the last five years the City of Cape Town has had the foresight to prioritise the fight against HIV, AIDS and TB, recognising that without a concerted, multi sectoral response to moderate both the impact of the epidemics and to address the underlying causes, key developmental priorities in the City would be in jeopardy. Despite these efforts, the HIV prevalence continues to rise, fuelling the TB epidemic.

The strategy for HIV & AIDS involves strengthening the prevention, treatment and care components. There is already a strong emphasis on condom distribution (highest in SA), "GET TESTED" campaign and other prevention interventions will be driven by a multi sectoral approach within City Health and MDHS. Already strong referral links to community home based care will grow and the number of clients on anti retoviral treatment will increase. The proposal is for future expansion of ART Services that will be nurse driven.

With respect to TB the two key objectives are to jointly increase case finding (particularly at provincial facilities) and to improve the new smear positive cure rate.

The most important tasks at hand include:
- Mainstreaming HIV, AIDS and TB
- Mitigating the Social, Economic and Human Impact
- Prevention
- Treatment
- Workplace Programme

Vision

To work together with the provincial health department to mainstream a multi-sectoral response that mobilises all City sectors in a developmental intervention to fight HIV/AIDS and TB, thereby reducing the number of new infections (especially among the youth). We also aim to reduce the impact of HIV/AIDS on individuals, families and communities and specifically on the Council workforce and reach an 85% cure rate for new smear positive TB cases over the next 5 years.

Legal Requirements

Clinic Health Services [Personal Primary Health Care] are now the statutory responsibility of the Provincial Health Department as stated in the National Health Act, No. 61 of 2003. Most sections of the Act came into effect on 2 May 2005.

Key strategic issues & challenges

In view of the multiple factors contributing to the pandemics and the sheer scope and impact of these, it is clear that turning the tide of HIV, AIDS and TB requires the involvement of all sectors. It is *not* just a health department issue! A mainstreamed, multi sectoral approach is the cornerstone to successful interventions. These aim to address the underlying factors fuelling the epidemics and reduce the impact of these diseases on individuals, families and communities.

Critical success factors/risks/dependencies

- Adequate staffing in clinics

- Continued Global funding to MSAT partnerships
- Provincial funding for an enhanced TB response

Resources to be used to achieve outcomes

- Capex: Nil
- Opex: R23,4 million for City Health component of HIV, AIDS & TB Unit
- People: 6 for City Health component of HIV, AIDS & TB Unit

Strategic goals & objectives (Outcomes)

Provide an integrated HIV, AIDS programme across the city in partnership with PAWC and provide an effective TB Control Programme

Key strategic programmes, projects and initiatives

- Mainstreaming HIV, AIDS and TB
- Mitigating the Social, Economic and Human Impact
- Prevention
- Treatment
- Workplace Programme

Key Performance Indicators, with benchmarks

- Mainstreaming HIV, AIDS and TB:- Departmental Plans implemented and monitored by the HIV/AIDS Coordinating Committee
- Mitigating the Social, Economic and Human Impact:- Fund & monitor NGO and CBO projects (31 December 2006: 68)
- Prevention:-
    - Increase condoms distributed per male >15 yrs per year (31 December 2006: 49)
    - Increase testing of adult population for HIV (31 December 2006: 9.4%)
    - Increase testing of STI clients for HIV (31 December 2006: 44.4%)
- Treatment:-
    - Increase clients on antiretroviral treatment (31 December 2006: 1,944)
    - Work towards a TB cure rate of 85% for smear positive TB cases (31 December 2006: 76%)
- Workplace Programme
    - Total of 175 staff (including partners & children) enrolled on the Treatment Programme
    - 90% of senior management attend an HIV Workplace Programme workshop
    - 8,000 staff attend at least 1 HIV awareness session
    - 5% of staff to be tested for HIV

H3 - AIR QUALITY MANAGEMENT PLAN
Description of the function/sector

The City Health Department of the City of Cape Town, with the co-operation and assistance of its Environmental and Scientific Services divisions, has formulated an Air Quality Management Plan for the City of Cape Town.

The Air Quality Management Plan for the City of Cape Town contains eleven main objectives. These objectives are further broken down into strategies and action plans in order to meet this commitment. This will be achieved by the formation of a number of multi-disciplinary committees with role players from within, as well as outside council.

The City of Cape Town has compiled a detailed Situation Assessment of Air Quality, which identifies the priority pollutants, sources, impact areas of air pollution, as well as current and possible future approaches to air quality management.

Vision

To be the City with the cleanest air in Africa.

Legal Requirements

Air pollution is a local government function as per schedule 4B of the Constitution. The key Act is the National Environment Management Act: Air Quality Act 39 of 2004 (which requires the City to have an air quality management plan). We also enforce the City of Cape Town Environmental Health By-law 13333 of 30 June 2003 and Air Pollution Control By-law 12649 of 4 February 2003.

Key strategic issues & challenges

Air pollution is a key factor which affects the health of a city. Air pollution levels are frequently high in our informal areas and even inside shacks. Therefore children, women and the elderly are exposed to dangerous levels of air pollution. In winter regular episodes of the so-called "Brown Haze" is a common sight as we look across the Cape Flats to the mountains that borders our city.

In 2003, the air quality monitoring stations recorded 162 days of poor air quality when the levels exceeded international accepted guidelines. These episodes and levels of air pollution represent a major health risk to our citizens and portray Cape Town in a negative way to visitors, tourists and residents alike. Key hot spots are household fuel burning areas, particularly informal settlements such as Khayelitsha - due to high particulate concentrations associated with fuel burning; the Central Business District and residential areas transacted by highways, on-ramps and main feeder roads, residential areas close to industrial areas such as Bellville South, Milnerton and Vissershok as well as residential areas close to the airport.

Critical success factors/risks/dependencies

In order to improve health and environmental conditions in the City, there is a need for the environmental health sector, of which the air quality section is part, to form partnerships with the public and private sectors and to work across sectors such as environment, housing, transport, energy, water, waste, etc. Intersectoral efforts are important in order to address complex, inter-related, cross-cutting problems whose determinants or solutions lie outside the direct control of the health sector. It is necessary to make optimum use of limited resources and to draw on the expertise, knowledge and experience of all relevant sectors of society in order to develop solutions which are sustainable and

implementable. For this reason the Healthy Cities principles form an integral part in the strategies followed by the environmental health sector in its efforts to create a healthy environment for all.

Resources to be used to achieve outcomes

- o Capex: R1.0 million City Health component 07/08
- o Opex: R5,5 million for City Heath component of unit
- o People: 17 for City Heath component of unit

Strategic goals & objectives (Outcomes)

- To formulate an air quality management system for the City of Cape Town.
- To specify ambient air quality standards and targets for Cape Town.
- To monitor priority pollutants which cause Brown Haze and affect human health.
- To improve air quality in informal areas.
- To enforce current and future legislation for air quality management.
- To compile a comprehensive emissions inventory database for the City of Cape Town.
- To control vehicle emissions in the City.
- To consider air quality in land use and transport planning.
- To determine the detrimental health effects of poor air quality on the population of the City of Cape Town.
- To establish a comprehensive education and communication strategy for air quality management.
- To periodically review the air pollution situation, report on progress and adjust and update strategies and objectives where needed.

Annexure I
City Partnership Strategy

The City will to oversee, manage and monitor its shareholdings and identified contractual relationships with external bodies and municipal entities to ensure alignment with the City's strategic objectives, compliance with pertinent legislation and good governance practices.

The City seeks to regulate and manage the shareholder interests of the City through monitoring the corporate governance, financial and legislative compliance of the entities and any strategic external body with a view to optimising the financial and non financial interests of the City as client and/or shareholder.

The municipal entities and strategic partners of the City are an important part of the functioning of the City in respect of the City's service delivery obligations and legal imperatives. The community holds the city accountable for the performance of municipal services, irrespective of the form of service delivery mechanism. It is therefore important that the City ensures that the City partners are aligned to the City's vision and strategic objectives and that each partner is performing within its legislative mandate.

As at 1 July 2006 the City had three municipal entities:

o The Cape Town International Convention Centre (Pty) Ltd (Convenco) operates a convention centre.
o Red One (Pty) Ltd is the entity established in terms of the national electricity restructuring initiative.
o The Kayelitsha Community Trust is responsible for developing the Central Business District of Kayelitsha.

Other strategic partners include Cape Town Routes Unlimited, Wesgro, Cape Town Community Housing Company and Cape Town Central City Partnership, Table Mountain National Park and ICLEI Local Governments for Sustainability.

The City deals with various forms of entities and partnerships, each with their own specific goals and objectives and limited resources. Consistent monitoring covers aspects such as business planning processes and corporate governance initiatives as well as financial monitoring, the City will continuously assess the performance of its partners. The City will also assess new opportunities and possibilities to establish either new entities or partnerships within the framework of existing legislation as the need arises.

The City's objective is to oversee, manage and monitor the City's shareholder and contractual relationship to ensure alignment with its strategic objectives and compliance with legislation and good governance practices as well as to provide assurance to the community that financial and service delivery performance is monitored to achieve the most economic, efficient and effective results with public funding.

The City will therefore encourage and, where possible, enforce legislative compliance of municipal entities and partners regarding the reporting procedures related to municipal entities. Best practice policies in line with corporate governance legislation formulated, implemented and regularly reviewed. Business planning processes will be designed and implemented and the City will provide input into Service Delivery Agreements and regularly review these Agreements to ensure alignment to City strategic goals and objectives. Liaison with and assistance to line function departments monitoring the service delivery aspects of the entities and partnerships will be provided and reporting formats in line

with legislative and best practice guides will be developed where not already legislated, and implemented.

Annexure J
Human Resources Strategy

The City's biggest single budget item staff costs. The City's most valuable asset, when optimally utilised, motivated and developed, is its people. However, this asset becomes a liability when not effectively utilised.

The City aims, by means of a clear and simple strategy to deliver the right people at the right place, at the right time, with the right skills. This strategy needs to ensure that the City can afford its staff, thereby ensuring the correct alignment of people to organisational needs, in order to provide value added results (Improved service delivery) within budget parameters.

Over the past six years, employees have faced multiple stressful and disruptive restructuring exercises, which have had a negative impact on both service delivery and staff morale.

A Corporate Staffing Strategy was developed early in the 2006 financial year and was aimed at putting in place a comprehensive set of initiatives to address the instability and misalignment of resources to institutional needs and staff morale. Its completion will form the foundation of a five year IDP Human Resources Strategy. This strategy has been extended to incorporate the following additional areas:

Corporate Staffing Strategy

The key outcomes of the current Corporate Staffing Strategy include:
- **Stabilisation intervention:-** Alignment of the current organisational structure to new political structure, amalgamation of previous administrations at all levels and completion of placement for all employees. This will be completed in the 2006/7 financial year.

- **Parity Intervention:-** Achievement of parity for all employees through the process of voluntarily moving employees to a standard set of Cost Of Services and pay structure. To be phased in over three to four year period, starting in the 2006/7 financial year and subject to the collective bargaining & TASK evaluation processes.

- **Integrated Talent Management, Remuneration & Performance Management:-** Development & implementation of integrated Talent Management, reward and performance systems, with the framework to be completed in 2006/7 financial year and implementation to be rolled out from 2008.

- **Implementation of Corporate Wide Individual Performance Management system:-** To be developed in the 2006/7 financial year, for implementation from 2008.

- **Creation, over time, of benchmarked, customer/community-centric organisation:-** To create flexible policies and strategies which will support the creation of a flexible organisational structure. The identification and phasing in of Department level & Corporate benchmarks to manage structure & business processes, over the next five years and the management of move to single public sector.

- **Increased investment in staff through implementation of:-** A Talent Management strategy, Leadership Development, Learnership programmes and Graduate programmes

- **Implementation of Quality Management** principles and processes, to embed sound and innovative managerial practices at all levels of the organisation.

- **Fully implement SAP HR process, moving to Management Self Service and Employee Self Service, based of SAP best practice:-** Implementation of an electronic time and attendance system that is to be phased in over the next two years. The balance of the outstanding modules to be implemented over next two years, including Occupational Health and Safety and integrated Human Capital Management.

- **Management of the change process through:** Implementation of a comprehensive client survey to be conducted at the start of the 2007 financial year. The identification of areas for productivity interventions to come out of survey and be implemented over next 5 years and ongoing change support to overall staffing strategy.

Directorate Level Staffing Strategies

The responsibility for the management of staff lies with line management. Policy formulation and professional services will be provided by Corporate Services. The funding of staff resources lies with line management and will be managed within their normal budget. The shifting of financial priorities lies with the City Manager, the City Financial Officer and the Executive Management Team. Executive Directors are held responsible to effectively manage the allocation and deployment of their resources.

To this effect, each Directorate will be required to prepare an annual Staffing Strategy and Staffing Plan which encompasses the following aspects:

- Projection of staffing needs based on a projected service delivery menu and future strategy.
- Identification of critical vacancies and financial plans to enable the filling of these positions.
- Identification of critical bottlenecks and underutilised resources and plan for the better utilisation of current resources.
- Management of staff remuneration in the context of the remuneration policy and financial plan.
- Development of a talent management plan, including the identification of scarce skills and retention and attraction strategies as well as staff development plans.
- Identification of staff learnership programmes and other training priorities.
- Identification of areas which require special interventions such as Business Planning Re-engineering and Quality Management.
- The human resources strategy to meet the requirements of Service Delivery Integration Strategy.
- Ensure the benchmarking of staff to service provision per department.
- Compliance with corporate benchmarks adopted by the Mayoral Committee.

Human Resources Budget

The management of annual budget lies with the line directorates. Any reallocation to meet growth areas will be built into the annual budget process. On an annual basis, the Executive Management Team needs to consider whether to reprioritise a percentage of the staffing budget in order to fund growth services and to reduce (Shrink) other services. This reprioritisation must be based on proper benchmarking of each Department, input on IDP priorities and Departmental attrition. Directorates will base their proposals on their Directorate level staffing strategies.

HR Development and Talent Management

The City will prioritise staff development and talent management by:

- Repositioning of the Human Resources function in terms of the Employee Value Chain;
- Increasing investment in this area;
- Implementation of the Human Capital Development module on SAP, including the competency framework, talent management model, leadership development model.
- Conducting a baseline Skills Audit and an Annual Skills audit update at Departmental level.
- Establishing a skills assessment centre.
- Implement a Leadership Development plan, including Personal Development Plans.
- Rolling out of comprehensive Performance Management system.
- Identification of scarce skills and strategy to develop, attract and retain skills.
- Development and implementation of graduate programme and extension of internships.

Time and Attendance Plan

Time and attendance has been identified as an area that requires urgent intervention. This will be done through the rolling out of an electronic time and attendance system, a process which will be championed by the Executive Management Team. This project forms part of the e-HR rollout plan of the City that will be phased in over the next two years.

Within this process the following is to be prioritised:-
- Putting in place an intervention to ensure that line management are able to take full responsibility for managing individual time and attendance.
- Implementing electronic leave for all employees who do not currently clock in electronically.
- Ensuring accurate information to monitor time and attendance.

HR Standing Committee on Compliance

The City will establish a Human Resources Standing Committee on Compliance. This Committee will consider bi-annual reports on corporate wide compliance to the following metrics. It will constitute the key measuring tool both for the outcome of the strategy (based on the metrics) and for compliance:-

- Absenteeism levels
- Time & attendance stats – including backlogs in capturing of leave & overtime
- Critical vacancies – funded & unfunded
- Identification & retention of scarce skills
- Average length of time to fill vacancies, including securing funding
- Placement of unplaced or underutilised employees
- Overtime expenditure, including optimisation of shift systems
- Training Expenditure & adherence to WPSDP
- Adherence to HR policies in relation to Employment Equity, Skills Development, Essential User, Medically unfit
- Adherence to SALGBC Agreements COS, TASK, Org Rights
- Occupational Health & Safety statistics
- Disciplinary cases & average length of time to finalise
- Grievances & average length of time to finalise
- Disputes
- Other risk items – Workplace HIV/Aids levels & treatment programme
- Individual Performance Management
- All HR related items raised by Audit Committee

ORGANISATIONAL DEVELOPMENT & TRANSFORMATION PLAN (OD&T)

Short description of Plan:

The purpose of the OD&T Plan is to develop a framework and drive a strategy that will facilitate the optimal provision, organisation and deployment of the City's human resources so as to enable the City to achieve its strategic goals and objectives. The primary alignment of the human resources to the City's needs took place in the previous financial year through the implementation of the new organisational structure and finalisation of the placement process. The focus of the transformation plan is now to shift the culture and managerial practice of the organisation in order to ensure delivery. This will be done by focussing on the following four areas:

- To shift the organisation to high performance, based on best practice benchmarking and through the alignment of people strategies to business strategies.
- To guide and drive the process of changing to a high performance organisation through the key strategic programmes.
- To measure the value gained by investment in employees, the % alignment of people strategies to business strategies and the extent to which the organisation measures up to international and national best practice benchmarks.
- To identify and implement key levers in the field of human capital management that will have the greatest impact on improved service delivery.

Vision :

Transform the City Administration into a sustainable high performance organisation, in which employees are developed, valued, empowered and motivated, quality management is embedded in all managerial practices and processes, and service delivery in terms of the IDP takes priority

Legislation :

Regulation 2 (1) (a), Municipal Systems Act.

Key strategic Issues and challenges

Key strategic issues:

    i. People management issues
    ii. Human Capital management issues
    iii. Quality management issues
    iv. Productivity issues

Key strategic challenges:

    v. Research & develop conceptual framework, methodologies and models which will empower the organisation to change its managerial practices and assess deliverables from client/customer/investor perspective.
    vi. Review current people management strategies.
    vii. Establish buy in from organisation to accept new ways of thinking and functioning.

Critical success factors:

- Leadership buy in to and ownership of transformation plan and framework.
- Creating change in climate and culture through change management interventions.
- Development, implementation and continued improvement of a corporate high performance measurement process and relevant measurements.

Strategies

- Embedding of high performance architecture
- Ongoing strategising which focuses on a challenging desired future through the IDP process
- Development of business partners (internal & external) required to achieve desired destiny
- Development of transformational leaders
- Aligning people strategies to business strategies
- Releasing potential of people
- Broad based change management initiative

Strategic Goals and Objectives

- The reduction in the cost of services
- The increase in funds available for service delivery
- Return on investment in human capital
- The reduction in loss of critical talent
- The improvement in the City's rating as employer of choice
- Alignment of employees with City's vision
- Continuous improvement through innovation in service delivery
- Embedding of quality management and best practice processes & policies

Key Deliverables

- ISO Certification
- Organisational & Human Capital Benchmark and measurements
- Effective stakeholder partnerships – internal & external – which support delivery on strategic objectives
- Organisational Climate Indicators (barriers or enablers to high people/ organisational performance)
- Talent Management strategies and interventions
- Transformational Leaders
- Full e-HR capacity

Resources to be used to achieve outcomes

- Capex : R9 million over three years
- Opex : R35 million over 3 years (inclusive of RG funding)

Key Strategic Programmes

- Human Resources Strategic Plan

- Change Management Plan
- Quality Management Plan

Key performance Indicators

- % decrease in cost of targeted services
- % increase in funds available for service delivery in targeted services
- % reduction in loss of critical talent in leadership and in key functions
- % return on investment in human capital development
- Improvement in the City's rating as employer of choice – to be in the top ten employers in Cape Town
- Alignment of employees with City's vision – The City that works for you - % improvement in customer satisfaction survey
- Embedding of quality management and best practice processes & policies
    - viii. % Departments achieving ISO certification
    - ix. Number of best practice standards set for targeted strategic and performance processes
    - x. % improvement in current productivity levels
- Number of successful continuous improvement initiatives implemented, which have a measurable impact on (a), (b) or (c) above

Annexure K: Draft Corporate Scorecard for 2007 – 2012

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
Strategic focus area 1: Shared Economic Growth and Development							
1A Create an enabling environment for the economy to grow (objective 1.1 – 1.10)							
1A.1 Number of direct job opportunities created (NKPI)	> 7000	7700	8600	9700	11000	13000	Annual report
1A.2 Rand Value of direct investment	> or = R 2 billion	R2,2 bn	R2,5bn	R2,6bn	R3,1bn	R3,6 bn	Annual report
1B Preparations for hosting the FIFA 2010 World Cup in accordance with FIFA's requirements and the City's developmental objectives (Objective 1.11)							
1B.1 Conformity with agreed programme to the City's Business Plan	New	100%	100%	100%			Annual report
1.B.2 Long term operator to manage stadium appointed	New	Operator appointed	Finalise base design for long term requirements and sustainability	100% Compliance with lease agreement	100% Compliance with lease agreement	100% Compliance with lease agreement	Annual report
Strategic focus area 2: Sustainable Urban Infrastructure and Services							
2A Universal access to basic service (objectives 2.1)							
2A.1 Percentage of households with access to basic levels of sanitation (NKPI)	96,9%	97,5%	98,1%	98,8%	99,4%	100%	Quarterly reports 5-year plan to eradicate
2A.2 Percentage of households with access to basic level of water (NKPI)	100%	100%	100%	100%	100%	100%	Quarterly reports
2A.3 Percentage of households with access to basic levels of Electricity (NKPI)	90%	91,8%	92,8%	93,8%	94,8%	95,8%	Quarterly reports
2A .4 Percentage of households with access to basic levels of solid waste removal (NKPI)	99%	99%	99%	99%	99%	99%	Quarterly reports
2B Conservation of natural resources (Objectives 2.2 – 2.5)							

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
2B.1 Percentage reduction in unconstrained water demand	29%	30%	33%	36%	38%	40%	Annual report
2B.2 Percentage compliance with 4 critical DWAF effluent standards (E-coli count, Ammonia content, Oxygen demanding substances, Total suspended solids)	76%	79%	85%	90%	95%	98%	Annual report
2B.3 Ensure recreational waters (bathing beaches, vleis, lagoons, etc) comply with applicable water quality standards to safeguard public health	75% of points sampled comply	76%	78%	80%	82%	85%	Annual report
2B.4 % Cleanliness of the City (Metropolitan Cleanliness/ Photographic index Shared indicator - Contributing departments: SWM, City Parks, Roads & Stormwater	61%	67%	*70%*	*73%*	*76%*	*80%*	Quarterly report
2B.5 Percentage of airspace saved in relation to the volume of waste disposed	14%	14.5%	15%	15.5%	16%	16.5%	Quarterly reports
2C Effective management of City's Infrastructure and Resources (Objectives 2.6 – 2.7)							
2.C.1 Development and Implementation of a planned infrastructure maintenance programme iro Electricity, Sewerage, Water and Roads & Stormwater, Solid Waste disposal	New	Integrated Infrastructure Plan developed and approved	100% compliance with plan specifications for Year 1	100% compliance with plan specifications for Year 2	100% compliance with plan specifications for Year 3	100% compliance with plan specifications for Year 4	Quarterly reports
Strategic focus area 3: Public Transport Systems							
3A Improve public transport system and services (Objectives 3.1 – 3.6)							
3A.1 Reduction of average commuter travel time (home to work – peak period- public transport)	45 min	40 min	38 min	37 min	36 min	35 min	Annual report
3A.2 Cumulative kilometres of	45km	5 km on baseline	12 km on	15 km on	20 km on	35 km on	Annual report

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
critical and feeder commuter routes as per Annual Transport Plan with dedicated bus lanes			baseline	baseline	baseline	baseline	
3A.3 Progressive evolution towards a single point of authority for transport	Approved transport agreement all spheres of government	Creation of a single transport authority	Transport authority fully operational				Annual report

Strategic focus area 4: Integrated Human Settlements

4A Improve and develop Integrated Human Settlements (Objectives 4.1 – 4.3)

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
4A.1 Development and adherence to Integrated Human Development plan (HIS) plan	New	HIS plan developed and approved	100% compliance with plan specifications	100% compliance with plan specifications	100% compliance with plan specifications	100% compliance with plan specifications	Annual report
4A.2 Maintain Community Facilities according to defined minimum maintenance standards	50%	70%	80%	85%	90%	95%	Annual report

4B Delivery of housing opportunities (Objectives 4.4 – 4.8)

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
4B.1 Number of new housing opportunities provided per year	8 335	10 200	11 000	12 000	12 000	12 000	Quarterly reports
4B.2 Development and implementation of an Informal Settlement Upgrade plan	New	Informal settlement Upgrade Plan developed and approved	100% compliance with plan specifications	100% compliance with plan specifications	100% compliance with plan specifications	100% compliance with plan specifications	Annual Report

Strategic focus area 5: Safety and Security

5A Foster a safe and secure environment (Objectives 5.1 – 5.6)

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
5.A.1 Percentage Adherence to Metropolitan Police Plan	Plan completed and approved	100% compliance with plan specifications	100%	100%	100%	100%	Annual Report
5A.2 Percentage implementation of Disaster Plans according to legislative requirements	Disaster Management Plan as per statutory	Disaster Management Plan developed and approved	100% compliance with plan specifications	100% compliance with plan specifications	100% compliance with plan specifications	100% compliance with plan specifications	Annual Report

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
	requirements completed and approved						
Strategic focus area 6: Social and Human Capital Development							
6A Facilitating the development of a healthy and socially inclusive society (Objectives 6.1 – 6.5)							
6A.1 Number of new Child Care facilities provided in partnership with governmental and non-governmental organisations	new	2	3	4	4	4	
6A.2 Number of partnerships implemented focussing on HIV/AIDS orphans	9	11	13	14	16	17	
6A.3 Number of partnerships implemented with Early Childhood Development sector	2	4	5	5	6	6	
6A.4 Number of local drug action committees established	2	8	16	24	32	40	
6A.5 Increase number of strategic sporting partnerships and events implemented	10	12	13	15	17	18	
6A.6 Number of street people accommodated	280	300	330	413	516	645	6 Monthly report
6A.7 Number of days when air pollution exceeds WHO guidelines	148	144	140	137	135	133	
6A.8 Reduction of the infant mortality rate (Number infant deaths per 1000 live births)	21,38	20,6	20	19,5	19,2	19	
6A.9 Slow the rate of increase of TB per 100 000 of Cape Town Population	878	980	1040	1090	1120	1140	
6A.10 Slow the rate of increase of the City's ante-natal HIV prevalence	16%	18,5%	19	19,3	19,6	19,8	
Strategic focus area 7: Good governance and regulatory form							

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
7A Ensuring enhanced service delivery with efficient institutional arrangements (Objectives 7.1 – 7.2; 7.4 & 7.6)							
7A.1 Development and adherence to a comprehensive HR development strategy	Comprehensive HR development strategy *Plan as per statutory requirements completed and approved*	100% compliance with plan specifications of Year 1	100% compliance with plan specifications of year 2	100% compliance with plan specifications of year 3	100% compliance with plan specifications of year 4	100% compliance with plan specifications of year 5	
7A2 Development and implementation of Quality Management Programme	Quality Management Programme developed and approved	10% of identified services/ functions ISO certified	20% of identified services/ functions ISO certified	50% of identified services/ functions ISO certified	70% of identified services/ functions ISO certified	100% of identified services/ functions ISO certified	
7A.3 Improved turnaround time of tender procurement processes in accordance with procurement plan	8 weeks	8 weeks	8 weeks	7 weeks	7 weeks	6 weeks	
7A.4 %Development of and adherence to Project Plan for Integrated Spatial Information System to link GIS, LIS and SAP	Integration Project Plan developed and approved	100% compliance with strategy specifications for Year 1	100% compliance with strategy specifications for Year 2	100% compliance with strategy specifications for Year 3	100% compliance with strategy specifications for Year 4	100% compliance with strategy specifications for Year 5	
7A.5 Gearing the City for improved Service delivery	Council approved Operating Model implemented by Council	100% compliance with strategy specifications for Year 1	100% compliance with strategy specifications for Year 2	100% compliance with strategy specifications for Year 3	100% compliance with strategy specifications for Year 4	100% compliance with strategy specifications for Year 5	
7B Management of key financial areas such as income control, cash flow, indigent support, alternative income opportunities, asset management and risk management. (Objective 7.5 – 7.6)							
7B.1 Net Debtors to Annual Income [Ratio of outstanding service debtors to revenue actually received for services (NKPI)]	21.07%	20%	20%	19,75%	19,75%	19,70%	Annual Financial Statement
7B.2 Debt coverage by own billed revenue (NKPI)	4.31:1	4.31:1	4.31:1	4.30:1	4.30:1	4.30:1	Annual Financial Statement

Core Objective	Baseline 30.6.2007	Target 30.6.2008	Target 30.6.2009	Target 30.6.2010	Target 30.6.2011	Target 30.6.2012	Evidence
7B.3 Percentage of City's Capital budget spent (NKPI)	95%	95%	96%	97%	98%	98%	Audited financial statements
7B.4 Percentage of City's operating budget spent	95%	95%	96%	97%	98%	98%	Audited financial statements
7B.5 Ratio of cost coverage maintained	2.60:1	2.60:1	2.50:1	2.45:1	2.45:1	2.46:1	Annual Financial Statement
7B.6 Revenue collected as a percentage of billed amount	94%	95,5%	96%	97%	98%	98%	Finance Management Report
7B.7 Percentage reduction in the number of recurring findings emanating from Internal Audit	New	50%	60%	70%	80%	90%	Quarterly Audit Committee Report
7B.8 Unqualified Audit from Auditor General	Unqualified audit received from AG	Unqualified audit received from AG	Unqualified audit received from AG	Unqualified audit received from AG	Unqualified audit received from AG	Unqualified audit received from AG	Receipt of clean audit report for financial year 2006/2007
7B.9 Maintain City's credit rating	A1+ (short term) AA- (long term)	A1+ (short term) AA- (long term)	A1+(short term) AA- (long term)	A1+ (short term) AA- (long term)	A1+ (short term) AA- (long term)	A1+ (short term) AA- (long term)	Credit Rating report
7C Establish effective community engagement channels (Objective 7.7 – 7.8)							
7C.1 Number of functioning ward participatory structures	105	105	105	105	105	105	
7C.2 Community satisfaction score measured in terms of the Likert scale (1-5)	3	4	4	4	4	5	6 Monthly Customer Perception Survey report

Annexure K1: Scorecard Indicator Definitions FOR 2007 - 2012

IDP 07/08	Objectives	City Indicators	KPI – Definition (How is it to be measured)	KPI – Standard / Norm / Benchmark
1 Shared Economic Growth and Development.	1A Create an enabling environment for the economy to grow	1A.1 Number of direct job opportunities created	Direct jobs are defined as those directly created through the implementation of the Department of Economic and Human Development (EHD) and tourism services and local economic development initiatives and programmes, including capital projects. No formula- absolute number collected by project managers and agencies reported quarterly.	Currently, the job crea figures in the tourism se are based on either the W Tourism Organisa standard of 12 internati tourists create 1 job or the of Cape Town standard o international tourists crea job.
		1A.2 Rand Value of direct investment	A monetary measure (Rand Value) of new investment in Cape Town secured by Wesgro and the Sector Organizations in one year. Direct investment in a City is an important component of a growing economy and a catalyst for development in disadvantaged areas. Wesgro is the City's vehicle for direct investment promotion. The Sector Organisations the City supports also secure direct investment in the City. Wesgro programmes and sub programmes investment promotion (investor targeting, joint marketing, missions, leveraging); investment facilitation, retention and expansion of new and existing investors, advocacy and strategic partnership management. Various by the Sector Organisations as part of their strategic plans and programmes. No formula-Absolute Rand Value per quarter recorded and reported.	
	1B Preparations for hosting the FIFA 2010 World Cup in accordance with FIFA's requirements and the City's developmental objectives	1B.1 Conformity with agreed programme to the City's Business Plan	The implementation of the 2010 Business Plan is managed, monitored and reported upon by means of a weekly Project Scorecard which is linked to the critical path of short, medium and long term milestones to be achieved at specified dates.	The project end date is pre defined by FIFA as the end Oct 2009. The tournament starts on 11 June 2010, wh is the non-negotiable standard.
		1B.2 Long term operator to manage stadium appointed	This is one of the 2010 key performance indicators to be achieved. There is no prescribed date of appointment of the Stadium Operator. It is advisable to appoint the Operator in-time to give input into the design refinements of the new Green Point Stadium in order to ensure it is a practical and sustainable multi-purpose stadium.	The Stadium Operator nee to be in place by latest July 2010 to operate the new Green Point Stadium post 2010 FIFA™ World Cup.
2 Sustainable Urban Infrastructure and Services.	2A Universal access to basic service	2A.1 Percentage of households with access to basic levels of sanitation (NKPI)	This indicator refers to household access. The %'s are based on an estimated City-wide household count of 847 000 (732 000 formal and 115 000 informal). Basic Service delivery refers to informal household access to water (informal - 1 tap : 25 household), sanitation facilities (informal - 1 toilet : 5 households), solid waste removal (integrated area cleaning and refuse removal per household) and electricity connections (including subsidised connections)	
		2A.2 Percentage of households with access to basic level of water (NKPI)	This indicator refers to household access. The %'s are based on an estimated City-wide household count of 847 000 (732 000 formal and 115 000 informal). Basic Service delivery refers to informal household access to water (informal - 1 tap: 25 household), sanitation facilities (informal - 1 toilet: 5 households), solid waste removal (integrated area cleaning and refuse removal per household) and electricity connections (including subsidised connections. Backyard dwellers are not added in the denominator, as it is taken that a backyard dweller is serviced by way of sharing the formal connection with the owner or tenant. (Total informal households serviced + Total formal households	In future this needs to be improved to numerically tie individual taps to individual shacks to ensure condition 200m distance away is achieved and that all settlements are serviced.

IDP 07/08	Objectives	City Indicators	KPI – Definition (How is it to be measured)	KPI – Standard / Norm Benchmark
			serviced) / All households in City. Total informal households serviced currently calculated on average as total no of taps x 25 hh/tap.	
		2A.3 Percentage of households with access to basic levels of Electricity (NKPI)	This indicator refers to household access. The %'s are based on an estimated City-wide household count of 847 000 (732 000 formal and 115 000 informal). Basic Service delivery refers to informal household access to electricity connections (including subsidised connections). Based on the average number of customers in a given period assuming that they all purchase monthly in the case of Prepaid customers.	
		2A.4 Percentage of households with access to basic levels of solid waste removal (NKPI)	The indicator reflects the % of formal properties (households) with access to the basic collection service, which is a once weekly door- to door containerized refuse collection service (240 L containerised service) Physical monitoring on a daily basis with SAP records reflecting actual billing	Every formal property is serviced once a week. No residential property is excluded. New properties are provided with a container once occupied. Monitoring is done by the refuse collection team. A 1% deviance to the 100% target is made to provide for continuous growth in developments
	2B Conservation of natural resources	2B.1 Percentage reduction in unconstrained water demand	Indicator refers to actual potable water usage below the predicted unconstrained demand curve, which is a theoretical curve starting in 200/2001 predicting what consumption would be if usage patterns of that time were to continue growing unabated. The aim is to see how far Water Demand Measures can reduce the actual usage below this curve. The actual usage comes from the Bulk Water's total monthly water treated, which is compared on a 12-month rolling basis (to flatten seasonal variations) with the theoretical curve. Formula: The 12-month rolling demand curve values - The 12-month rolling value of monthly bulk water treated) / the 12-month rolling demand curve values = to get %.	
		2B.2 Percentage compliance with 4 critical DWAF effluent standards (E-coli count, Ammonia content, Oxygen demanding substances, Total suspended solids)	The overall average of % samples passing tests for 4 parameters at each works: TSS 25mg/l, COD 75mg/l, NH3 10mg/l, E Coli 1000/100ml. A flow-weighted version is also possible, where the total flow at each work is used to give proportional weight to the result for that works, but is not used in this indicator. Spreadsheet calculates average compliance for 4 parameters at each works and gets the overall average monthly.	
		2B.3 Ensure recreational waters (bathing beaches, vleis, lagoons, etc) comply with applicable water quality standards to safeguard public health	This indicator applies to bathing beaches, vleis and lagoons officially designated for recreational purposes only and not the urban rivers. Coastal waters are sampled fortnightly and inland waters are sampled monthly. The following standards based on Water Affairs and Forestry National Water Quality Standards for full and intermediate contact recreation apply: (1) Full contact recreation (i.e. Swimming, surfing, etc): a. 80th percentile of sample results over 12 months < 100 *Escherichia coli* counts / 100ml water b. 95th percentile of sample results over 12 months < 2000 *Escherichia coli* count / 100ml water. (2) For intermediate contact recreation (i.e. Fishing, canoeing, etc): Median of sample results over 12 months < 1000 faecal coliform counts / 100 ml water.	
		2B.4 % Cleanliness of the City (Metropolitan	The Metropolitan Cleanliness Index (MCI) is a measure of the state of cleanliness of the visual scape, be it street, or beach, or public open space. It is derived from a rigorous,	

IDP 07/08	Objectives	City Indicators	KPI – Definition (How is it to be measured)	KPI – Standard / Norm Benchmark
		Cleanliness/ Photographic index see Note: 3 below) Shared indicator - Contributing departments: SWM, City Parks, Roads & Stormwater	formal, documented process which includes photographing and assigning a score at each chosen location. There is a scoring modus operandi including model photographs as a reference for each of four score possibilities. The accumulation of such scores is converted into a percentage. Locations are divided into eight categories such as "primary roads," "rivers", "informal areas" etc. The metropolitan area is divided into eight districts using the health district model. The final product is a matrix with % scores for each location category and per district with totals for each category and district and a grand total score. The measuring is conducted in rounds of one to two months usually twice a year. So far five rounds have been completed and are designated as MCI 1, MCI 2 etc. On each matrix produced comparative scores from previous rounds are depicted.	
		2B.5 Percentage of airspace saved in relation to the volume of waste disposed	This indicator reflects the % of airspace saved by diverting recyclables from the waste stream in relation to the volume of waste disposed of. Implementation of waste of waste reduction strategy (greens chipping, rubble crushing, composing, streaming and MRF, industrial waste. % reduction in airspace used = total waste stream diverted (cub.m – m^3) / total waste disposed (cub.m – m^3)	
	2C Effective management of City's Infrastructure and Resources	2C.1 Development and Implementation of a planned infrastructure maintenance programme iro Electricity, Sewerage, Water and Roads & Stormwater		
3 Public Transport Systems.	3A Improve public transport system and services	3A.1 Reduction of average commuter travel time(home to work – peak period)	The average travel time for commuters from home to work. The indicator will be measured using EMME2 Transport model with 2004 household survey as a base.	
		3A.2 Cumulative kilometres of critical and feeder commuter routes as per Annual Transport Plan with dedicated bus lanes	The introduction of dedicated public transport lanes. The indicator will be measured from the capital projects implemented within the Transport Corridors.	
		3A.3 Progressive evolution towards a single point of authority for transport	The indicator will be measured by the milestones reached in achieving a single point of authority for transport i.e. protocols agreed to, draft founding document , legislation compiled, legislation promulgated etc.	
4 Integrated Human Settlements.	4A Improve and develop Integrated Human Settlements	4A.1 Development and adherence to Integrated Human Development plan (HIS) plan		
		4A.2 Maintain Community Facilities according to defined minimum maintenance standards	Development of minimum maintenance standards for the different categories of community facilities (Sport and recreation facilities, resorts, cemeteries, zoned public open spaces, libraries, clinics, beaches) and the percentage adherence to these established standards.	
	4B Delivery of housing opportunities	4B.1 Number of new housing opportunities provided per year	Quantity, number of houses (top structures) built that is ready for beneficiaries to occupy. Monthly evaluation, counting of houses via Project Managers and verified by signed beneficiary form. Not captured on SAP. Budget is captured on SAP and each project is	

IDP 07/08	Objectives	City Indicators	KPI – Definition (How is it to be measured)	KPI – Standard / Norm Benchmark
			allocated a budget and a project is created on SAP.	
5 Safety and Security.	5A Foster a safe and secure environment	5A.1 % Adherence to the Metropolitan Police Plan	The SAPS Act required Department to draft an Annual Police Plan which sets out its objectives for next financial year. It will be measured according to the extend to which the Dept meet the identified objectives in the Plan. Still in development phase of 2007/08 plan.	100% adherence objectives.
		5A.3 % Implementation of Disaster Plans according to legislative requirements	This indicator refers to preparing a plan for the area, co- ordination and alignment of processes and regular review. The Plan should form part of the IDP as well as meeting the criteria as envisaged by the Disaster Management Act.	No National or Provin Benchmark exists but National Disa Management Framew provides for guidelines.
6 Social and Human Capital Development.	6A. Facilitating the development of a healthy and socially inclusive society	6A.1 Number of new Child Care facilities provided in partnership with governmental and non-governmental entities		
		6A.2 Number of partnerships initiated to positively impact on the lives of HIV/AIDS orphans		
		6A.3 Number of partnerships implemented with ECD sector		
		6A.4 Number of local drug action committees established		
		6A.5 Increase number of strategic sporting partnerships and events implemented		
		6A.6 Number of street people accommodated		
		1 6A.7 Number of days when air pollution exceeds WHO guidelines	Any day when any one of the criteria pollutants at any one of the 10 air quality monitoring stations in the City exceeds WHO guidelines.	Baseline of 177 d Dependent on wea conditions and pollutants
	.	6A.8 Reduction of the infant mortality rate (Number infant deaths per 1000 live births)	Number of deaths < 1 year per 1,000 live births for that year Data collected by Health Information births and deaths	
		6A.9 Slow the rate of increase of TB per 100 000 of Cape Town Population	Total Number of TB cases per 100 000 population. Electronic TB Register (ETR.Net) and DHIS Population. Total Number of TB cases/Total Populationx100 000	
		6A.10 Slow the rate of increase of the City's ante-natal HIV prevalence	Prevalence of HIV in tested Antenatal Women. VCT Registers and Data Management System (In-House City Health). Number of Antenatal Women tested HIV +ve/Total Number of Women testedx100.	

IDP 07/08	Objectives	City Indicators	KPI – Definition (How is it to be measured)	KPI – Standard / Norm Benchmark
7 Good governance and regulatory form.	7A Ensuring enhanced service delivery with efficient institutional arrangements	7A.1 Development and adherence to a comprehensive HR development strategy		
		7A.2 Development and implementation of Quality Management Programme		
		7A.3 Improved turnaround time of tender procurement processes in accordance with procurement plan	There are 2 measures that we are taking into account ; A) Tenders are believed to be completed in 6 weeks from the closing to award, this is the norm. Therefore we have improved from 15.5 down to 8 weeks representing the improvement. B) Orders are based on a norm of not having any unprocessed requisitions calculated on a 22 day working month. The result in the first quarter shows that we are behind the norm. The net result of a and b is that we have improved the SCM processing by the % indicated.	Tenders are believed to be completed in 6 weeks from closing to award
		7A.4 %Development of and adherence to Project Plan for Integrated Spatial Information System to link GIS, LIS and SAP	The following milestones are set out in the project plan: Phase 1: (2006/07) Conceptual and Logical Design of the Integrated Spatial Information System Phase 2: (2007/08) Development of ISIS by integrating LIS with Cadastral dataset, Integration with main property systems and SAP. Phase 3: (2008/09) Application development and linking with spatial systems and non-spatial systems.	
		7A.5 Gearing the City for improved Service delivery		
	7B Management of key financial areas such as income control, cash flow, indigent support, alternative income opportunities, asset management and risk management.	7B.1 Net Debtors to Annual Income [Ratio of outstanding service debtors to revenue actually received for services (NKPI)]	Net Current debtors: Is the balance of debtors that are classified as current for financial statement purposes, but excluding the short-term portion of long-term debtors. The provision for bad debts is deducted from the current debtors' balances. Provision for bad debts: Is the amount set aside as a provision in the accounting records to take into account the possible non-payment by debtors. Total Annual Operating Income: Income from all sources that will be credited to the income statement for financial statement purposes in accordance with prescribed financial statement formats but excluding conditional grants for capital expenditure, housing receipts attributable to the Housing Development Fund, new housing subsidy scheme receipts, public contributions and gains on the disposal of property, plant and equipment. The mid-year calculations for operating income are based [on the actuals up to the current period plus the budget for the remaining period.	
		7B.2 Debt coverage by own billed revenue (NKPI)	Own billed revenue to loans outstanding. Total own billed income: Income from all sources that will be credited to the income statement for financial statement purposes in accordance with prescribed financial statement formats. Total debt: Aggregate of long-term liabilities, short-term liabilities including bank overdrafts, hire purchase liabilities and finance lease liabilities but excluding trade creditors, consumer deposits, payments in advance from consumers and provisions, debt related to sinking fund investments is reduced by the investment. The mid-year calculations for own billed revenue are based	

IDP 07/08	Objectives	City Indicators	KPI – Definition (How is it to be measured)	KPI – Standard / Norm / Benchmark
			on the actuals up to the current period plus the budget for the remaining period.	
		7B.3 Percentage of City's Capital budget spent (NKPI)	% reflecting Actual spend / Planned Spend – SAP Report	Nationally and Provincially there's no benchmark although National has indicated that as far as the Capital Budget is concerned they are flexible as it varies from each municipality. Therefore in the nutshell 100% must be spent.
		7B.4 Percentage of City's operating budget spent	% reflecting Actual spend / Planned Spend – SAP Report	Nationally and Provincially there's no benchmark although National has indicated that when reviewing Midyear Assessment on Operating Budget their expectation is between 48% and 55%. Therefore in the nutshell 100% must be spent.
		7B.5 Ratio of cost coverage maintained	Total cash and investments (short term) to monthly operating expenditure. Cash and cash equivalents refer to the short term investments and cash available as at the period ending. Operating expenditure: Includes all expenditure that will be debited to the income statement for financial statement purposes in accordance with prescribed financial statement formats, it exclude [operating expenditure related to the N2 Gateway development project. It excludes capital expenditure The mid-year calculations for expenditure are based on the actuals up to the current period plus the budget for the remaining period.	
		7B.6 Revenue collected as a percentage of billed amount	The calculation of a percentage of payments received on amounts billed. Section 97 Of the MFMA address the revenue management and a circular from National Treasury spells out the detail and the formula we need to use	See MFMA Section 97
		7B.7 Percentage reduction in the number of recurring findings emanating from Internal Audit		
		7B.8 Unqualified Audit from Auditor General	Reflects that the Auditor-General is satisfied as in accordance with a prescribed accounting framework.	
		7A.9 Maintain City's credit rating	A report which reflects credit worthiness of an institution to repay long-term and short-term liabilities.	
	7C Establish effective community engagement channels	7C.1 Number of functioning ward participatory structures	Previously known as Ward Committees. One per ward and consisting of elected/nominated members of the community/organisations active in a community.	
		7C.2 Community satisfaction measured in terms of the Likert scale (1-5)		

Annexure L
Economic Development Plan
(PDF File Received)

Annexure M
Annual Report
(PDF File Received)

Annexure N
Public Transport Plan
(Only Hard Copy Received)

Annexure O
Integrated Transport Plan
(Only Hard Copy Received)

Annexure P
State of the City Report
(PDF File Received)

Annexure Q
CITY OF CAPE TOWN SUSTAINABILITY REPORT 2006

City of Cape Town Sustainability Report 2006

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Foreword (Mayor)
(Still requires approval from the Mayor)

Cape Town is home to some of the most beautiful and unique natural environments in the world, a diverse and exceptional cultural heritage, and outstanding economic opportunities. However, these special qualities are under threat from unsustainable development and pressing social and environmental problems.

The City of Cape Town has made a commitment to ensuring environmental sustainability, while striving to provide a better life for all its citizens. The City of Cape Town believes that in order to achieve this goal, hard work is required to improve social, economic and ecological conditions in the city, within a framework of good governance. This second annual Sustainability Report provides an insight into the progress that is being made in achieving the goal of becoming a Sustainable City.

Unfortunately, after seven years of State of the Environment and Sustainability Reporting it is clear that Cape Town continues to move away from this goal in some areas. Increasing levels of drug-related crime, deteriorating health, high levels of poverty, and exceptionally high levels of air and water pollution pose significant challenges to the City which must be addressed as a matter of urgency.

It is not all bad news though. A number of key indicators have shown improvement, especially in terms of economic growth, employment, crime and education. The City's Nature Conservation team, in partnership with local communities, is also hard at work to ensure the long-term sustainability of the city's unique and endangered plant and animal life.

The value of the Sustainability Report lies in its ability to provide a core set of information for decision-makers and the general public in an accessible and understandable manner. The key function of this report is to show trends over time. In this way it provides a key reference for decision-makers and allows City councillors and officials to work with a complete and integrated picture of sustainability in Cape Town.

The City of Cape Town is committed to improving sustainability in the city. However, we cannot achieve this alone. Achieving long-term sustainability in the city will require good working partnerships with Provincial and National Government, Non-Governmental and Community-Based Organisations, the Private Sector and individual citizens. I therefore urge you, the reader, to play your part in helping Cape Town achieve its goal of long-term sustainability. The future of Cape Town as a Sustainable City is in all of our hands.

Introduction (City Manager)
(Still requires approval from the City Manager)

Following on from the success of the first annual Sustainability Report, the City of Cape Town has committed to annual reporting on its progress towards sustainability.

Sustainability reporting enables the City of Cape Town to report on the whole environment of the city in an integrated and holistic manner. It does so whilst ensuring linkages with the City's Integrated Development Plan (IDP) and Integrated Metropolitan Environmental Policy (IMEP). These policy linkages have been detailed within the document and are listed for each indicator. This report also focuses on the extent to which Cape Town has contributed to the fulfilment of the United Nations Millennium Development Goals (MDG), which South Africa has pledged to achieve by 2015. A full list of the MDGs can be found in Annexure D.

The City's IMEP demonstrates how best to implement sustainability at a local government level. In 2006 the IMEP underwent a comprehensive review. This review process involved key stakeholders from all line functions within the City, and identified a number of areas for improvement. One of the key findings of the review process was a need for issues of environmental sustainability and conservation to be more integrated in the City's IDP and planning processes. The strategic goals of IMEP can be found in Annexure A.

Towards the end of 2006 the City embarked on a process to develop a second generation IDP (2007/8 - 2011/12), with the goal of improving its strategic and planning functions. The City is currently in the process of finalising this detailed five-year strategic action plan. In doing so it focuses on seven strategic focus areas, namely: Sustainable Urban Infrastructure and Services, Public Transport Systems, Integrated Human Settlements, Safety and Security, Shared Economic Growth and Development, Health, Social and Human Capital Development, and Good Governance and Regulatory Reform.

The overarching theme and a key goal of the IDP is creating a Sustainable City. This second report shows a number of key trends related to the progress towards that goal. Future editions will further expand on these trends and allow the City to determine the most appropriate courses of action. A list of the City's IDP goals can be found in Annexure B.

In June 2005, the City committed itself to The Green Cities Declaration - 21 Urban Environmental Accords which were endorsed by world mayors at the UNEP World Environment Day Celebration in San Francisco. These accords relate to moving towards sustainability in the areas of energy, transport, waste, health, water, biodiversity and open space. The implementation of the Urban Environmental Accords is a long- term process, which the City is committed to achieving. A full list of these accords can be found in Appendix D.

1
1 Methodology

Sustainability

In recent years sustainability has become a key focus area of national and local governments worldwide. Sustainability has also become a key performance issue for many private companies, in terms of fulfilling their corporate social responsibility obligations. However the term can often be misunderstood, and therefore a good working definition is required.

ICLEI (Local Governments for Sustainability) offers a definition which defines sustainability at a local government level, therefore: 'sustainable development is development that delivers basic environmental, social and economic services to all residents of a community without threatening the viability of the natural built and social systems upon which the delivery of these systems depends'[i]

The key to achieving sustainability is adopting a long-term and forward-looking approach to improving quality of life. This ensures that future and cumulative impacts of current development activities are anticipated and that quick-fix solutions, which fail to address the root causes of problems, are avoided. Ideally, local governments should keep in mind the following key points when implementing sustainability[ii].

- Wise management of the environment is fundamental to achieving growth – it is not an obstacle.
- There must be equity in service delivery and opportunities.
- Ecological limits must be respected and resources must be used in a sustainable manner.
- Development is not simply economic - it also has social, political, environmental, ethical, spiritual and cultural dimensions.
- Public participation and consultation are essential.

In implementing principles of sustainability it is essential that local governments achieve a balance between ecological, social, governance and economic aspects. Promoting social or economic goals to the detriment of the natural environment will have serious negative consequences for the future. Similarly, conserving the environment in an old-fashioned manner that fails to take into account social needs is doomed to failure. Finally, in order for sustainability to succeed it is necessary for the City to work within a framework of good governance, and promote transparency and accountability.

Indicators

In order to report on Cape Town's progress towards sustainability, it is necessary to have a set of common measurements that can be tracked over time. These measurements, more commonly known as 'indicators', allow us to quantify, monitor and report on changes in our world[iii].

Sustainability Reporting focuses on those indicators which give information about four key areas of the environment – social, economic, ecological/biophysical and governance. A useful indictor will provide data about a number of these areas. For example, coastal water quality has ecological, economic and social components. Poor water quality negatively affects the health of beach users, the natural coastal environment and has a negative impact on tourism, one of Cape Town's key economic activities.

In the interests of clarity each indicator within this report will be described in terms of the areas of sustainability it reflects, and illustrated with a diagram depicting this visually.

The selected indicators are aligned with the IDP and the IMEP and represent issues that are relevant to the City of Cape Town and its residents. The selection of indicators was also guided by international and local experience in this field, scientific research, and consultation with key stakeholders.

Data on each indicator is assessed and analysed to determine whether a positive or negative trend can be seen. Each indicator in the report is associated with a graphic depicting this analysis thus:

☺   – situation improving
☺   – no change
☹   – situation deteriorating
?   – insufficient data available

It is important to remember that indicators provide a glimpse into the progress towards sustainability at a particular point in time, and that they don't necessarily tell the whole story. However, monitoring indicators over time allow one to draw fair and truthful conclusions about the progress towards achieving sustainability in the city, while ensuring that necessary action is taken in a timely fashion.

Summary

The second annual City of Cape Town Sustainability Report has identified a number of trends for key indicators, providing an insight into the city's progress towards sustainability. Unfortunately, there are still a number of indicators which lack detailed data, or for which historical data simply does not exist. The City is engaged in the process of gathering detailed data, however, in some cases this is a long-term exercise.

Indicators which show improvement are: ☺

- **Green space per capita:** Cape Town has more managed green space per capita than most other cities in the world. This continues to grow as additional land is incorporated into nature reserves.
- **Extent of invasion by alien invasive plant species:** Although alien vegetation is extremely hard to eradicate, most of the City's large nature reserves have strong management interventions in place and are making good progress.
- **Water use per capita**: Water use per capita has gradually decreased, especially since 2001 when water restrictions were put in place. This is a positive step as Cape Town is a water-scarce area.
- **Incidence of murder:** This crime rate has seen a significant and sustained decrease since 2003, which is indicative of more effective policing and law enforcement.
- **Incidence of industrial and commercial crime:** This crime rate has seen a significant and sustained decrease since 1998, which is indicative of effective policing and law enforcement.
- **Access to water:** In 2006, 100% of residents of Cape Town had access to a clean, safe water source within 200 metres of their home.
- **Access to sanitation:** In 2006 there was a 30% increase in the number of informal residents with access to a flush toilet.
- **Unemployment**: In 2005 unemployment decreased by 3% for the first time since 1997.
- **Gross geographic product (GGP):** The economy of Cape Town has continued to grow. 2005 saw a real growth of 4.5%.
- **Local Agenda 21 projects:** These have increased over the years, providing a valuable service to communities and creating a mechanism for local environmental problems to be addressed.
- **Public and staff education and awareness programmes:** A high number of training and education person days have been noted in the recent past. The City continues to grow its education, awareness and training programmes.
- **Capital budget spent:** In 2005/6 over 71% of the capital budget was spent. While this is still under-spending, it shows a significant increase since 2002.

Indicators which show no change are: ☺

- **Proportion of effluent reused**: There has been no significant increase in the percentage of treated effluent reused, although programmes are in place to increase use of this resource.
- **HIV/AIDS prevalence:** The HIV/AIDS infection rate appears to have stabilised at approximately 16%.
- **Incidence of rape and indecent assault:** The rape and indecent assault rates in Cape Town remain unacceptably high. No significant change has been noted since 1994.
- **Percentage informal settlements**: The percentage of residents living in informal settlements has remained at approximately 13%. The number of informal dwellings in Cape Town appears to have stabilised.

- **Adult literacy:** Adult literacy remains at approximately 84%.

Indicators which show decline are: ☹

- **Air quality exceedances:** Particulate matter pollution in the city has remained at an almost constant level since 2001.
- **Carbon dioxide per capita:** The per capita carbon footprint in Cape Town has continued to grow at a slow but constant rate.
- **Public and private transport:** Private cars are extensively used in Cape Town, with rail passengers decreasing due to safety concerns. There is a lack of an integrated public transport system.
- **Extent of urban sprawl:** Cape Town continues to expand outwards, with most residents favouring low-density single-family dwellings.
- **Coastal water quality**: Coastal water quality has declined significantly, with fewer beaches meeting guideline requirements.
- **Landfill lifespan:** Landfills are rapidly running out of space and therefore the City of Cape Town Solid Waste Management Department is dedicated to finding alternative solutions to landfilling waste.
- **Waste disposal per capita:** Residents of Cape Town continue to dispose of more waste per capita each year.
- **Tuberculosis incidence:** The incidence of new cases of TB continues to grow each year. This is a critical public health issue.
- **Leading cause of death:** The leading cause of death in Cape Town is HIV/AIDS. There is a high incidence of both communicable and non-communicable 'lifestyle' diseases.
- **Drug use and drug-related crime:** The incidence of drug related crime in Cape Town has soared since 2004. Increasingly, teenagers and young adults are using dangerous methamphetamine or 'tik' as their primary drug of abuse.
- **Incidence of fires in informal settlements**: The number of dwellings damaged and destroyed in fires continues to grow at an unacceptable rate. 2005 saw over 6 000 shacks destroyed by fire.
- **Highest level of education achieved**: Less than half of Cape Town residents over the age of 18 have completed matric or a higher qualification. Declining matric pass rates have been observed.
- **Poverty and income disparity**: The percentage of the population living below the household subsistence level has increased significantly since 1996.
- **Election turnout**: Significantly fewer registered voters turned out for the 2006 municipal elections than for the 2000 municipal elections.

Indicators for which there is insufficient data to show trends are: ?

o **Renewable energy vs. total energy supply:** The City of Cape Town has a number of projects, strategies and agreements in place in order to promote and increase the use of renewable energy.
o **Energy use per sector**
o **Extent of natural vegetation conserved:** A number of ecosystems in Cape Town are critically endangered due to encroachment of development and infestation by alien vegetation. Ongoing efforts to conserve Cape Town's unique biodiversity are in place.
o **Fresh water quality**

The City of Cape Town is committed to creating a better, more sustainable city through the application of the City's IDP and IMEP, and the City's commitment to the implementation of the UN Millennium Development Goals and Urban Environmental Accords. As these policies and goals have a medium to long-term view it is important to acknowledge that many changes may take some time to manifest themselves. However, the City is confident that despite the challenges that have to be faced, the ultimate goal of creating a Sustainable City is an achievable one.

1   Air quality exceedances

Indicator: The number of times per year that the United Kingdom 24-hourly running mean particulate matter (PM$_{10}$) guideline is exceeded.

The quality of the air we breathe is important not only for the health of the natural environment but also for the health of the city's population. PM$_{10}$ has been identified as a key pollutant in the City of Cape Town Air Quality Management Plan due to its significant negative health and aesthetic impacts.

PM10 Exceedances   ■ City Centre   ■ Goodwood   □ Khayelitsha

Number of exceedances

150 125 100 75 50 25 0

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006

No data for Khayelitsha 1995 - 1998 and 2001
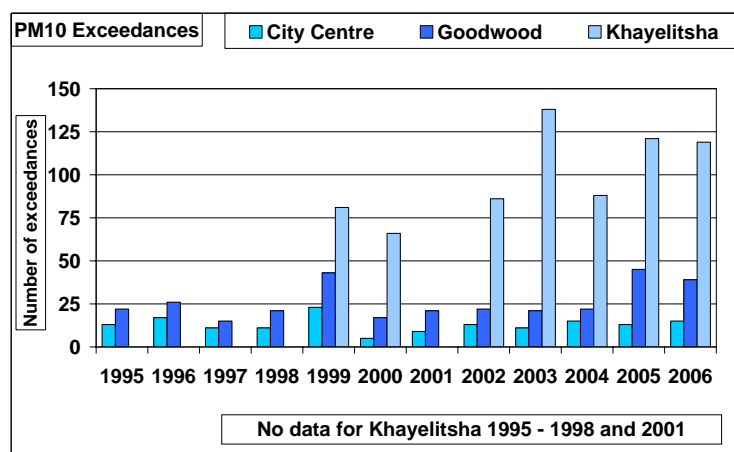
PM$_{10}$ pollution in Cape Town is caused primarily by burning of paraffin and wood as fuel for cooking, heating and lighting, as well as emissions from diesel vehicles. Therefore it is expected that low-income and partially informal areas such as Khayelitsha would have significant levels of PM$_{10}$ pollution due to the almost universal use of paraffin and wood as part of the household energy mix.

PM$_{10}$ pollution is one of the primary contributors to the unsightly 'brown haze' often to be seen hanging over Cape Town. PM$_{10}$ serves as a good measure of general air pollution as its presence indicates the presence of other air pollutants, which can be damaging to the natural environment. While particulate matter pollution itself is only loosely associated with ecological damage, it is very strongly associated with increased health risks. The United Kingdom's Department of Environment, Food and Rural Affairs (DEFRA) has suggested that exposure to even low levels of PM$_{10}$ pollution can have a significant negative health impact[iv]. Long-term exposure to high levels (more than 75 exceedances per year) of PM$_{10}$ is associated with increased incidence in a number of serious respiratory conditions. Respiratory health risks include an increased rate of chronic bronchitis, asthma and an increased risk of lung cancer. Furthermore, those with an already compromised respiratory system due to TB infection are particularly at risk of complications due to PM$_{10}$ inhalation

Data shows that the number of exceedances in the city centre and Goodwood has remained generally the same since 1995, although significant increases were measured at Goodwood in 1999, 2005 and 2006. Exceedances in Khayelitsha have remained at unacceptably high levels since monitoring began in 1999. A particularly high number of exceedances were noted in 2003, 2005 and 2006, indicating that the air quality in this area is deteriorating. The past two years have recorded a consistently high number of exceedances, possibly indicating a continuing negative trend. This is particularly alarming as PM$_{10}$ pollution poses an especially serious health risk to residents of low-income and informal areas, owing to the high incidence of TB and limited access to health

care in these areas. The continued reliance on polluting sources of energy by poor residents of Cape Town is a considerable public health risk.

COMPONENTS OF SUSTAINABILITY

Biophysical - Air pollution negatively affects the proper functioning of ecological systems.

Social - Air pollution negatively affects the health of residents.
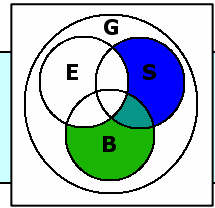
POLICY LINKAGES

IMEP: Air - Commitment to reducing all forms of air pollution.

Urban Environmental Accord: Action 18 - Establish an Air Quality Index to measure the level of air pollution and set the goal of reducing by 10% in seven years the number of days categorised as 'unhealthy' or 'hazardous'.

See also:

* Public and private transport

* CO$_2$ per capita

* TB incidence

1   Renewable energy vs. total energy supply

Indicator: The amount of renewable energy used per year as a percentage of the total energy supply.

Renewable energy is defined as energy that is obtained from sources that can be replenished within human lifetimes. Although fossil fuels, such as coal, oil and natural gas are replenished over millions of years we are using them much faster than the rate at which they are replenished and therefore they are not considered to be renewable.

The burning of fossil fuels is therefore an unsustainable method of obtaining energy, as supplies are finite and will eventually run out. Furthermore, the burning of fossil fuels is the primary contributor to the increase of atmospheric CO_2, the greenhouse gas responsible for climate change. Therefore, alternative sources of energy must be found and utilised in order to ensure an environmentally and economically sustainable future.

Currently very little renewable energy is produced in South Africa, and as such there is virtually no renewable electricity supplied to the national grid. However, current estimates do not take into account the widespread and increasing use of solar water heaters in private homes around Cape Town, although statistics are not available at this time. The City has drafted a Solar Water Heater By-law which is currently available for public comment before it is passed into law. This by-law requires that all new buildings in Cape Town, and additions to existing buildings that will require the use of hot water, make use of a solar water heating system. The law makes allowances for buildings where this will not be possible, for historical or structural reasons, as well as for privately funded low-income developments where the cost per unit is less than R36 000.

A small portion of the electricity generated at the Steenbras hydroelectric pumped storage plant can be considered renewable. The pumped storage plant operates by pumping water uphill at night when the cost of electricity from Eskom is cheap and releasing water downhill through turbines during the day when electricity is more expensive. This allows the plant to act as a buffer for periods of high electricity consumption. Natural drainage due to rainfall in the catchment area adds to the amount of water flowing through the turbines and can be considered renewable energy. This renewable portion generally consists of less than 0.5% of the total system electricity.

"Green" electricity generated at Steenbras as a percentage of the total system electricity
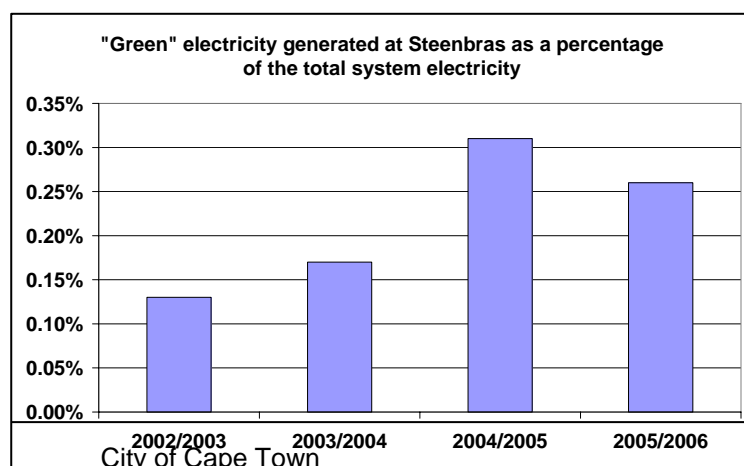
The Darling wind farm - South Africa's first privately operated power station - has been approved and, with four wind turbines, is expected to produce 13.2GWh of electricity a year initially - or 0.11% of Cape Town's current energy use. The City of Cape Town has signed a 20-year power purchase agreement with Darling Wind Power, which is expected to

City of Cape Town

expand its plant to ultimately include 16 wind turbines that could supply 53GWh a year, or 0.43% of Cape Town's current energy use[v]. Although this may seem like a small amount, this wind farm is but one of a host of renewable interventions planned for the Western Cape in the coming years, including a number of large wind farms to be operated by Eskom.

Wave-generated electricity is another feasible, but as yet commercially unexplored opportunity for Cape Town. With over 308 km of coastline, there are plenty of opportunities for the installation of both onshore and offshore generators, which are designed specifically so as to be low profile and not interfere with coastal views and aesthetics.

Cape Town is an ICLEI Cities for Climate Protection member city, and as such is committed to reducing the city's CO_2 footprint. The integration of clean renewable technologies into Cape Town's energy mix is a key part of this commitment.

COMPONENTS OF SUSTAINABILITY

Biophysical - Renewable energy plays a vital role in reducing air pollution and CO2 emissions.
Economic - As the price of oil rises, renewable energy will play an increasingly important role.
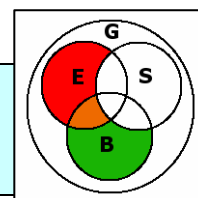
POLICY LINKAGES

IMEP: Energy - A commitment to sources of energy with the least impact on the environment and health of communities.
IDP: 2020 Goal - Renewable energy share equal to 10% of energy consumed.
MDG Goal 7: Target 9 - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.
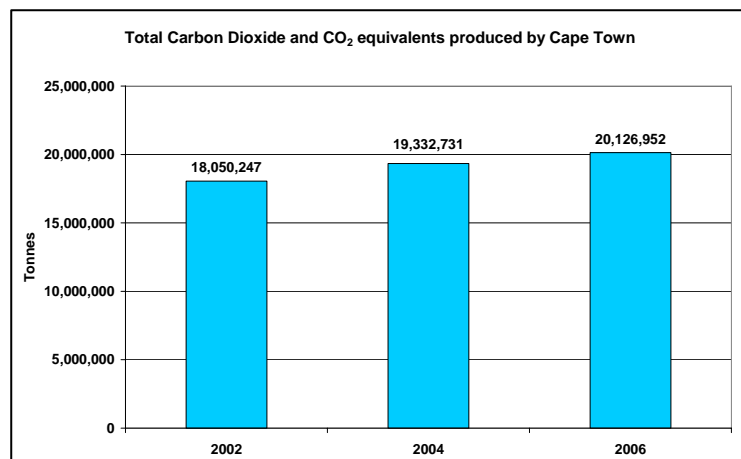**Urban Environmental Accord: Action 1 -** Adopt and implement a policy to increase the use of renewable energy to meet 10% of the city's peak electric load within seven years.

See also:
* CO_2 per capita

1   Energy use per sector

Indicator: The percentage of energy used per sector per year.

Unfortunately no updated information was available for this indicator in 2006. However, it is unlikely that the sectoral use of energy has changed significantly since 2005.

Energy use in Cape Town is dominated by three main sectors: transport, commerce & industry and domestic (households). The City of Cape Town is also a significant user of energy, accounting for approximately 2% of the total energy use in the Cape Town area.

Energy use by sector

Local Authority
2%

Households
15%

Transport
54%

Commerce and
Industry
29%
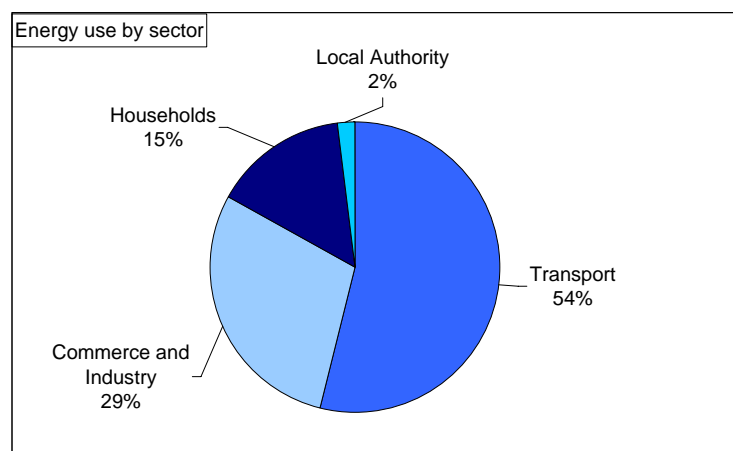
The transport sector remains the dominant energy user in Cape Town and uses primarily petroleum products such as petrol and diesel, with a very small percentage of vehicles making use of cleaner fuels such as liquid petroleum gas and electricity. In recent years hybrid vehicles, which use a combination of petrol and electricity, have grown in popularity but still represent a small minority of vehicles on the road. This dominance by the transport sector has important implications for all residents of the city, as roads become increasingly congested, adding to stress levels and contributing to loss of productivity in the workplace due to worker lateness.

The dominance of the transport sector also has negative implications for air quality and greenhouse gas emissions levels in Cape Town, as the burning of petrol and diesel for transport purposes is a significant contributor to the city's carbon footprint, as well as PM_{10} pollution. In order to reduce the city's overall energy usage the implementation of safe and reliable public transport is a key issue.
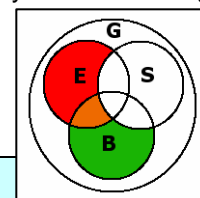
COMPONENTS OF SUSTAINABILITY

Biophysical - Understanding the sectoral distribution of energy use is vital in the development of plans to reduce energy usage and greenhouse gas emissions.

Economic - Understanding the sectoral distribution of energy use allows the development of plans to reduce energy usage without negatively impacting on the economy.

POLICY LINKAGES

IDP: 2020 Goal - Renewable energy share equal to 10% of energy consumed.

IMEP: Energy - A commitment to sources of energy with the least impact on the environment and health of communities.

MDG Goal 7: Target 9 - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.

See also:

* Air quality exceedances

* CO_2 per capita

* Public and private transport

1   Carbon dioxide per capita

> **Indicator: The total amount of carbon dioxide and carbon dioxide equivalents produced through energy consumption in Cape Town, per person.**

Total Carbon Dioxide and CO$_2$ equivalents produced by Cape Town

Year	Tonnes
2002	18,050,247
2004	19,332,731
2006	20,126,952

Carbon dioxide (CO$_2$) is a colourless, odourless gas produced as a by-product of numerous human activities, primarily the burning of fossil fuels to generate electricity and for transport purposes.

In South Africa, approximately 90% of the electricity generated is through coal-burning power plants. Coal is one of the dirtiest fuels available and produces a massive amount of CO$_2$ when burned. Petroleum and diesel fuels used in motor vehicles similarly produce CO$_2$, although to a lesser extent.

Per Capita Carbon Dioxide and CO2 equivalents produced by Cape Town

Year	Tonnes
2002	5.92
2004	6.12
2006	6.21
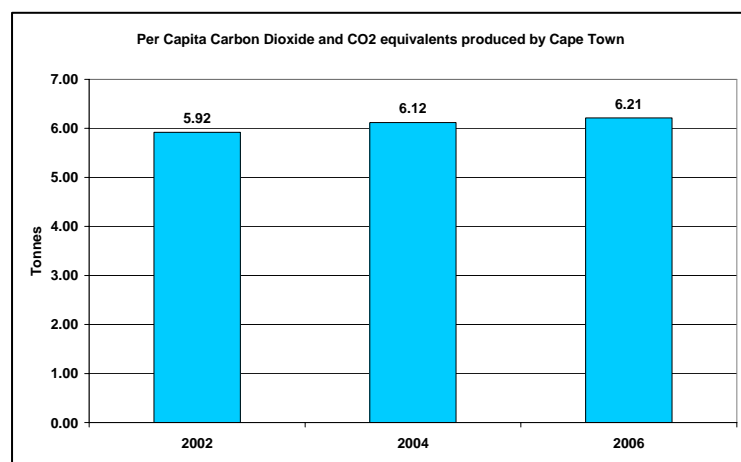
The rise in human-produced atmospheric CO$_2$ has been identified as the leading cause of climate change, which is expected to have significant negative environmental, social and economic impacts. These will include sea-level rise, hotter average temperatures and an increase in extreme weather events.

The per capita carbon dioxide use was calculated by adding together the emissions produced through the use of electricity, petrol, diesel, paraffin, liquid petroleum gas, jet fuel, heavy fuel oil and coal in 2006. Although the transport sector is responsible for 54% of Cape Town's total energy use, electricity is responsible for almost 70% of Cape Town's CO$_2$ emissions. This is because most of Cape Town's electricity is generated by coal-burning power plants in the north-east of the country.

In 2006, Cape Town produced an average of **6.21 tonnes of CO$_2$ equivalent per capita**, indicating an increase of 290 kg per capita since 2002. The graph shows a trend of increasing CO$_2$ per capita emissions, although a smaller increase was experienced between 2004 and 2006 than was experienced between 2002 and 2004. Time will tell whether Cape Town's emissions continue to grow, or if interventions in terms of sustainable and renewable technologies and demand side management, will reduce Cape Town's overall CO$_2$ production.

South Africa is a signatory to the Kyoto Protocol, which is committed to the worldwide reduction of greenhouse gas emissions. All energy users in South Africa have a responsibility to reduce CO_2 emissions, and the City of Cape Town is leading the way through its commitment to sustainable technologies and conservation of energy. Cape Town is also committed to addressing climate change through its role as a member of Cities for Climate Protection, an ICLEI initiative which involves more than 550 cities working to reduce their CO_2 emissions.

COMPONENTS OF SUSTAINABILITY
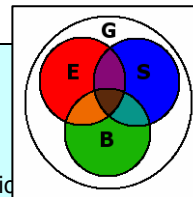
Biophysical - Carbon dioxide emissions contribute to climate change which will have as signific   act on ecosystems.

Social and Economic - Carbon dioxide emissions contribute to climate change which will have negative economic and quality of life impacts on all people.

POLICY LINKAGES

IMEP: Energy - A commitment to sources of energy with the least impact on the environment and health of communities.

MDG Goal 7: Target 9 - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.

Urban Environmental Accord: Action 3 - Adopt a citywide greenhouse gas reduction plan that reduces the jurisdiction's emissions by 25% by 2030 which includes a system for accounting and auditing greenhouse gas emissions.

See also:

* Air quality exceedances

* Renewable energy vs. total energy supply

* Energy use per sector

1   Public and private transport

Indicator: Number and percentage of passengers per transport mode entering the Cape Town CBD.
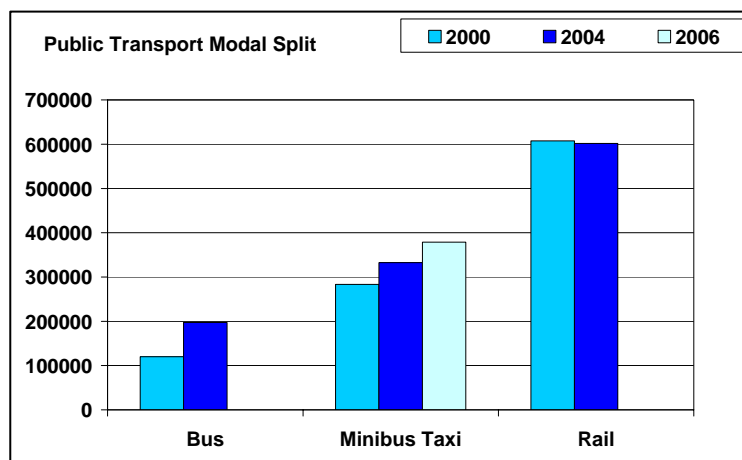
An effective public transport system is a key part of building an efficient and environmentally sustainable city. This helps by reducing congestion on the roads as well as reducing emissions of CO_2 and other atmospheric pollutants. In Cape Town the traffic flow is severely restricted by the geography of the city, and so a public transport system that ameliorates this problem would be of great social and economic benefit to the city.

Unfortunately, statistics on bus and rail use for 2006 were not available, but studies currently being conducted by the City's Transport Department will provide further information by mid-2007. Statistics on minibus taxi use were available for 2006 and showed a significant 14% increase in the use of this transport mode since 2004, and a considerable 34% increase since 2000.
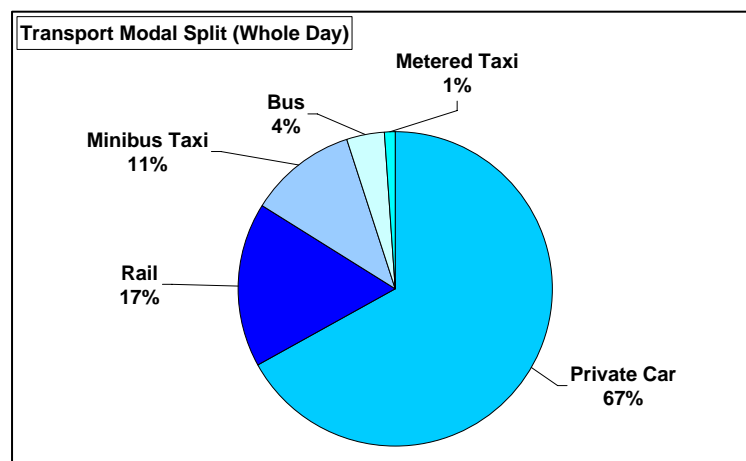
It is also important to note that the modal split during the morning peak shows a significantly different picture to the whole day modal split. Rail is heavily used during peak hours, but use drops off sharply between the morning and evening peaks. The reason for this is the public perception that rail transport is dangerous outside of peak hours, due to the relatively higher crime rate experienced at these times. Additionally, there is a significantly reduced rail service outside of peak hours, perhaps as a response to the decreased demand[vi].
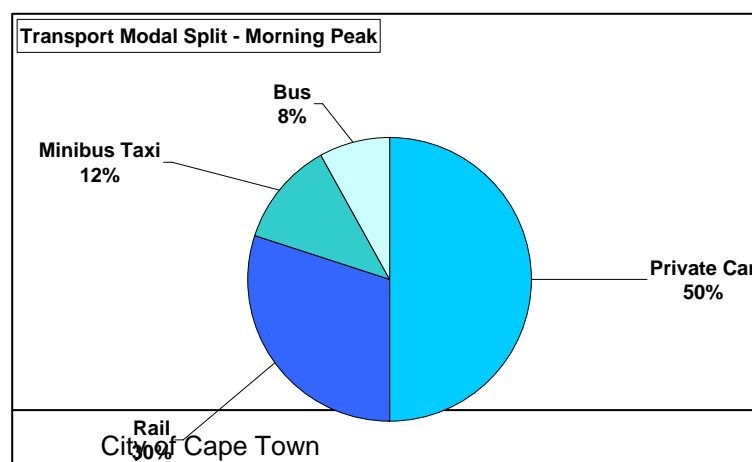
In order to reduce traffic congestion and minimise harmful emissions, it is necessary to improve Cape Town's public transport system. By reducing crime on rail transport and changing the perception that it is an unsafe transport mode, the number of rail passengers would markedly increase and therefore

contribute to a reduction in traffic congestion. Furthermore, ensuring a regular service outside of peak hours, as well as a coordinated bus and train schedule, will promote the use of public transport in Cape
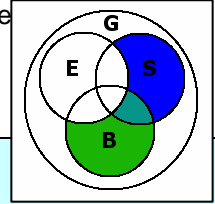
COMPONENTS OF SUSTAINABILITY

Biophysical - Increased traffic volumes negatively affect air quality and ecology due to harmful emissions in vehicle exhausts.

Social - Congestion and noise pollution in the city negatively impacts commuter times and therefore people's quality of life and stress levels.

POLICY LINKAGES

IDP: Strategic Focus Area 2 - Public transport systems.

IMEP: Transportation - A recognition that transportation is needed for access to facilities and work opportunities.

Urban Environmental Accord: Action 15 - Implement a policy to reduce the percentage of commuter trips by single occupancy vehicles by 10% in seven years.

See also:
* Air quality exceedances
* CO$_2$ per capita
* Energy use per sector

Green space per capita

The provision of good quality green areas within a city is a vital part of creating a dignified living environment, where residents can find recreational opportunities and aesthetic enjoyment. Green spaces can be broadly defined in three categories - nature reserves, parks and public open space. Nature reserves are those formally protected areas dedicated to the management of biodiversity and the conservation of indigenous flora and fauna, as well as environmental education. They also provide recreational space and often include braai and picnic areas and hiking trails. Parks are generally smaller than nature reserves, are most often found in suburban neighbourhoods and provide recreational space for communities, especially children. Public open space consists of natural and man-made areas that form part of the broader public space network of the city.

This indicator has been redefined for this report to include both land managed by the City of Cape Town, as well as nature areas managed by other spheres of government within the Cape Town area, and therefore cannot be compared with figures stated in the previous report. The table below shows the amount of green space available in Cape Town in each category in 2006. In addition, Cape Town has approximately 308 km of coastline, which provides further recreational and conservation space.

Type of green space	Area (ha) in city	Area (m^2) per capita
City of Cape Town nature reserves	14,562.69	44,95
Parks and public open space	4,860.00	15,01
Total area on City land	19,422.69	59,95
Other nature reserves (provincial and national, including Table Mountain National Park)	32,669.25	100,84
Total green space in Cape Town	52,091.94	160,79

It is quite clear from the figures available that Cape Town has more green space per capita than almost any other major city in the world. Curitiba[vii], Brazil, and Portland[viii], Oregon (USA) have comparably high amounts of green space per capita. Densely populated and highly urbanised cities such as Tokyo[ix] and Hong Kong[x] have comparatively small amounts of green space with 5.34 and 2.5 square metres per capita respectively. Most world cities with a large suburban population have moderate amounts of green space per capita, with a typical example like Melbourne[xi], Australia having approximately 16 square metres per capita.

Unfortunately, easy access to good quality public green space remains problematic in Cape Town. For many residents of poor suburbs good quality green space remains inaccessible due to the distance that they are required to travel because public transport linkages to the City's nature reserves, beaches, and the Table Mountain National Park are poor. Furthermore, the cost of entry to the Table Mountain National Park means that most residents of Cape Town cannot afford to gain access.

The promotion of easy access to good-quality green space has long been a goal of the City of Cape Town. In order to achieve long-term sustainability, promote social well-being and recreation, and conserve Cape Town's unique biodiversity, it is essential that the City continues to conserve, improve, and maintain its green space, and improve public access to these areas.
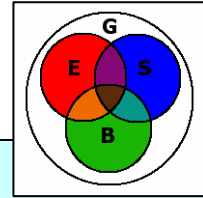
COMPONENTS OF SUSTAINABILITY

Biophysical - Green spaces within the city are vital to biodiversity conservation.

Economic - The unique natural landscapes in Cape Town are a significant draw factor for tourists and contribute greatly to the local economy.

Social - Access to quality green spaces is of key importance in terms if providing recreational space as well as creating a dignified and aesthetically pleasing city.

POLICY LINKAGES

IDP: 2020 Goal - Access to safe green space within walking distance for all.

IMEP: Urbanisation and Housing - A recognition that environmental features and systems need protection from urbanisation.

Urban Environmental Accord: Action 10 - Ensure that there is an accessible public park or recreational open space within half a kilometre of every city resident by 2015.

See also:
* Extent of natural vegetation conserved
* Extent of invasion by alien invasive species
* Extent of urban sprawl

Extent of natural vegetation conserved

Indicator: The extent of national vegetation types secured within Cape Town as a percentage of the target for each vegetation type. The overall target for each vegetation type is the minimum extent of that vegetation type needed to ensure its long-term viability within the city.

The City of Cape Town is located in the heart of the Cape Floristic Kingdom, the world's smallest and most diverse floral kingdom. As such, it is an area of high biodiversity and unique conservation value - a global urban biodiversity hot spot without parallel. The Cape Floristic Kingdom also has one of the highest proportions of endemic species in the world, with over 70% of the approximately 9 600 species that occur here found nowhere else in the world. However, Cape Town is an urban area with high rates of economic and population growth, which remain a constant threat to biodiversity conservation in the city. As a result the Cape Floristic Kingdom has been identified as a global hot spot, placing an international responsibility on all three spheres of government to ensure its adequate conservation. Cape Town is home to nine of the country's 21 critically endangered ecosystems.

Of particular concern are the Cape Town Lowlands, otherwise known as the Cape Flats and historically home to over 1 466 different plant species. Unfortunately, this area has also experienced some of the worst uncontrolled urban sprawl and environmental neglect in the city, and therefore over 14% of indigenous plants on the Cape Flats are Red Listed as species threatened with extinction. It is worth noting that Cape Town has experienced the highest rate of plant extinctions of any city in the world.

The following table shows the extent of natural vegetation conserved in Cape Town, based on photography and surveys carried out in late 2006. In order to preserve endangered and vulnerable ecosystems for the future, these conservation initiatives must be maintained and extended. Unfortunately, in some cases it is impossible to meet conservation targets, as too little remnant vegetation remains. In these cases, the entire remnant area must be conserved in order to ensure that a sample of this unique biodiversity is conserved for future generations.

Table: Extent of Natural Vegetation in Cape Town under formal conservation (City of Cape Town Nature Reserves, Table Mountain National Park, and National and Provincial Nature Reserves)

National Vegetation Type	Sub Type	Remnant Hectares in Total	Total hectares Formally Conserved	% Formally Conserved	% of historical extent lost	Status
Peninsula Shale Renosterveld	on recent non-aeolian colluvium	5.41	0.02	0.45%	98.90	CR
Swartland Shale Renosterveld	on recent non-aeolian colluvium	246.56	24.96	10.12%	94.94	CR
Swartland Shale Renosterveld	On Shale	3,823.32	629.68	16.47%	90.78	CR
Cape Lowland Freshwater Wetlands	Wetlands	124.38	22.27	17.91%	86.83	CR
Lourensford Alluvium Fynbos	on recent non-aeolian colluvium	646.68	453.74	70.16%	86.58	CR
Peninsula Shale Renosterveld	on Shale	290.07	252.28	86.97%	84.59	CR
Cape Flats Sand Fynbos	on marine-derived acid sands	8,030.07	517.64	6.45%	83.87	CR
Swartland Granite Renosterveld	on Granite	1,522.82	32.48	2.13%	73.19	CR

Vegetation Type	Substrate	Total Area	Area Conserved	% Conserved		Status
Cape Flats Sand Fynbos	on older non-aeolian colluvium	1,184.91	3.20	0.27%	71.21	CR
South Peninsula Granite Fynbos	on Granite	1,037.84	985.42	94.95%	68.29	CR
South Peninsula Granite Fynbos	on recent non-aeolian colluvium	1,313.33	1259.37	95.89%	64.25	CR
Cape Flats Dune Strandveld	on sands	15,994.27	4245.91	26.55%	54.79	EN
Peninsula Shale Fynbos	on recent non-aeolian colluvium	369.19	368.27	99.75%	54.16	EN
South Peninsula Granite Fynbos	on marine-derived acid sands	111.49	105.45	94.58%	52.11	EN
Hangklip Sand Fynbos	on marine-derived acid sands	1,185.43	850.40	71.74%	49.72	EN
Cape Winelands Shale Fynbos	on Shale	1,022.96	352.80	34.49%	47.86	EN
Boland Granite Fynbos	on recent non-aeolian colluvium	3,402.49	1277.23	37.54%	41.87	EN
Cape Flats Dune Strandveld	on Shale	187.00	13.02	6.96%	36.89	VU
North Peninsula Granite Fynbos	on Granite	734.17	725.68	98.84%	35.62	VU
Atlantis Sand Fynbos	on marine-derived acid sands	6,958.64	373.49	5.37%	35.56	VU
Cape Flats Dune Strandveld	on sands over or on limestone	2,757.01	1188.24	43.10%	34.36	VU
Peninsula Shale Fynbos	on Shale	314.11	312.78	99.58%	31.26	VU
South Peninsula Granite Fynbos	on Shale	0.35	0.35	100.00%	28.83	VU
North Peninsula Granite Fynbos	on recent non-aeolian colluvium	626.87	625.38	99.76%	26.85	VU
Boland Granite Fynbos	on Granite	2,700.96	1204.66	44.60%	23.44	VU
Hangklip Sand Fynbos	on sands	798.41	781.21	97.85%	23.28	VU
Cape Flats Dune Strandveld	on Sandstone	149.60	127.03	84.91%	22.45	VU
Atlantis Sand Fynbos	Strandveld/Fynbos transition (on calcareous/acidic/neutral sands)	7,734.43	273.45	3.54%	13.39	LC
Peninsula Sandstone Fynbos	on Mudstone	784.72	782.32	99.69%	11.32	LC
Peninsula Sandstone Fynbos	on Sandstone	19,363.26	18479.75	95.44%	6.08	LC
Southern Afrotemperate Forest		298.80	295.69	98.96%	0.83	LC
Kogelberg Sandstone Fynbos	on Sandstone	10,608.32	6446.29	60.77%	0.59	LC
Elgin Shale Fynbos	on Shale	241.73	30.02	12.42%	0.29	LC
South Peninsula Granite Fynbos	on Mudstone	1.80	1.80	100.00%	0.00	LC
Total Area Conserved		**94 571.41**	**43 042.29**	**45.51%**		

KEY:
CR = Critically endangered
EN = Endangered
VU = Vulnerable
LC = Least Concern

It is clear from the above table that there is a significant disparity in the conservation of certain vegetation types. Of the 34 types listed, 18 could be said to be well conserved, while the remaining types are only partially or poorly conserved. In total, approximately 45.5% of Cape Town's Natural Vegetation is under formal conservation, although some types have almost no formal conservation in place. Existing conservation initiatives must be maintained and extended in order to ensure the long term survival of these unique vegetation types.

COMPONENTS OF SUSTAINABILITY

Biophysical - Conserving natural vegetation is a pivotal part of protecting and promoting biodiversity in Cape Town.

Economic - Conservation initiatives support job creation. Cape Town's natural environment is a strong tourist attraction and contributes to the important tourism sector in Cape Town.

Social - Natural vegetation plays an important role in providing quality recreational space.
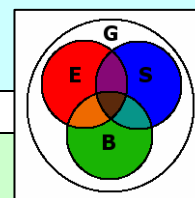
POLICY LINKAGES

IMEP: Flora and Fauna - A commitment to the conservation of biodiversity in Cape Town.

MDG Goal 7: Target 9 - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.

See also:

* Green space per capita

* Extent of invasion by alien invasive species

* Extent of urban sprawl

Extent of invasion by alien invasive plant species

Indicator: The spatial extent of infestation by alien invasive plants as both the geographical extent of infestation as well as the percentage gain on the previous year's extent.

Alien invasive plant species are defined as those species 'whose introduction and/or spread threaten biological diversity'[xii] Extensive areas of Cape Town's unconserved land are infested by alien invasive plants, especially Australian *Acacia* species, and alien grasses. Alien invasive plants pose a serious threat to the globally unique biodiversity of Cape Town, for a number of reasons.

1. Alien invasive plants grow at a much faster rate than indigenous vegetation, and when established, crowd out the indigenous plants.
2. Alien invasive plants tend to consume significantly more water than indigenous vegetation and pose a threat to Cape Town's already scarce water supply. This phenomenon is easily observable along watercourses, where alien plants are often found to be growing densely.
3. Alien invasive plants tend to be especially inflammable. Fynbos does benefit from fire and a typical fynbos fire occurs once every 10 to 15 years and burns slowly at a low temperature. However, when these aliens are present they contribute to a much hotter and faster burning fire, which destroys indigenous vegetation seed banks and lowers its recovery potential.

Alien invasive plant species also pose a significant security problem in many low-income communities, as they provide screening for criminal activities. In 2005 and 2006 areas of dense alien vegetation in the Cape Flats were dubbed as the 'Bush of Evil', due to a number of rapes and murders which had taken place there. Action was taken by both residents of these communities and the City of Cape Town to cut back and clear these dangerously overgrown areas.

The table below shows those alien invasive plants which have been identified as being particularly troublesome and widespread.

	Species name	**Common name**	**Region of origin**
1	*Acacia saligna*	Port Jackson	Australia
2	*Acacia cyclops*	Rooikrans	Australia
3	*Leptospermum laevigatum*	Australian Myrtle	Australia
4	*Hakea gibbosa*	Rock Hakea / Rock Needlebush	Australia
5	*Eucalyptus spp.*	Blue Gum (and others)	Australia
6	*Myoporum insulare*	Manatoka	Australia
7	*Pennisetum clandestinum*	Kikuyu Grass	Central Africa (tropics)
8	*Echium plantagineum*	Paterson's Curse / Salvation Jane	Mediterranean
9	*Spartium junceum*	Spanish Broom	Mediterranean
10	*Bromus diandrus*	Ripgut Brome	Mediterranean
11	*Erodium spp.*	Heron's Bill	Mediterranean

12	*Solanum mauritianum*	Bugweed / Wild Tobacco	South America
13	*Eichornia crassipes*	Water Hyacinth	South America (tropics)

The City of Cape Town's Environmental Resource Management Department has embarked on a comprehensive programme of alien vegetation clearing within its 23 nature reserves. At this point in time, statistics are not available on alien clearing operations outside of the City's nature reserves, although significant progress has been made in the Table Mountain National Park.

Alien invasives have proved difficult to eradicate and require regular follow-ups and monitoring. As of the end of 2006, the following progress has been made:

Nature reserve	Area of reserve (ha)	Percentage cleared	Hectares cleared
Blaauwberg Conservation Area	1,174.14	75%	880,6062
Bracken Nature Reserve	35.94	unknown*	unknown*
Dick Dent Nature Reserve	10.98	unknown*	unknown*
Durbanville Nature Reserve	5.83	unknown*	unknown*
Edith Stephens Wetland Park	34.00	70%	23,8
Harmony Flats Nature Reserve	18.55	90%	16,69104
Helderberg Nature Reserve	427.23	10%	42,72264
Kogelberg Nature Reserve	6,979.88	unknown*	unknown*
Lourens River Nature Reserve	2,999.10	1%	29,99105
Macassar Dunes Nature Reserve	740.96	25%	185,241
Mamre Nature Reserve	231.88	unknown*	unknown*
Perdekop	18.30	unknown*	unknown*
Raapenberg	14.73	unknown*	unknown*
Rietvlei Wetland Reserve	526.68	unknown*	unknown*
Rondebosch Common	40.26	unknown*	unknown*
Rondevlei Nature Reserve	232.61	75%	174,4564
Silwerboomkloof Nature Reserve	4.84	5%	0,242123
Tygerberg Nature Reserve	300.00	75%	225
Uitkamp Nature Reserve	29.31	unknown*	unknown*
Waterhof	0.54	unknown*	unknown*
Wolfgat Nature Reserve	263.90	unknown*	unknown*
Zandvlei Estuary Nature Reserve	207.67	80%	166,1325
Zeekoevlei Nature Reserve	348.68	75%	261,5091
Zoarvlei Nature Reserve	34.00	unknown*	unknown*
All Reserves (Total)	**14,680.01**	**14%**	**2,006.39**

* Although the statistics on the percentage cleared are unavailable, interventions are in place in all reserves.

In total, approximately 14% of City land under formal conservation has been cleared. However, it is important to note that a nature reserve in an urban context can never be fully cleared of alien vegetation, as seeds are carried in from outside the reserves by wind and animal vectors. Furthermore, alien plants are hardy and tough to completely eradicate, and therefore it may require a number of years of follow-up before an area can be deemed 'cleared'[xiii]

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Although statistics for many of the smaller nature reserves are not available at this time, it is clear that most of Cape Town's large nature reserves have clear alien management programmes in place, and are making good progress. In order to ensure the long-term sustainability of biodiversity and water resources in Cape Town, these clearing programmes need to be maintained and expanded to biodiversity areas across the city, as a matter of urgency.
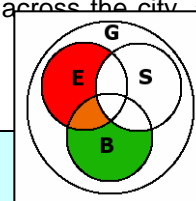
COMPONENTS OF SUSTAINABILITY

Biophysical - Alien invasive species crowd out local indigenous plants, having a devastating impact on ecosystems.

Economic - Alien invasive plants use up local water resources, and promote and fuel forest fires at a huge cost to the City.

POLICY LINKAGES

IMEP: Flora and Fauna - A commitment to the conservation of biodiversity in Cape Town.

MDG Goal 7: Target 9 - Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.

See also:

* Green space per capita

* Extent of natural vegetation conserved

* Extent of urban sprawl

Extent of urban sprawl

Indicator: Percentage of low-density dwelling units in Cape Town and the average number of undeveloped hectares transformed in Cape Town.

Building Plans Submitted - Type of Dwelling

☐ Blocks of Flats
■ Town Houses
■ Single Dwelling Houses

Period	Blocks of Flats	Town Houses	Single Dwelling Houses
May 04 - Oct 04	1.3%	14.1%	84.6%
Nov 04 - Apr 05	1.4%	12.1%	86.5%
May 05 - Oct 05	1.3%	9.7%	89%
Nov 05 - Apr 06	1.4%	10.6%	88.1%
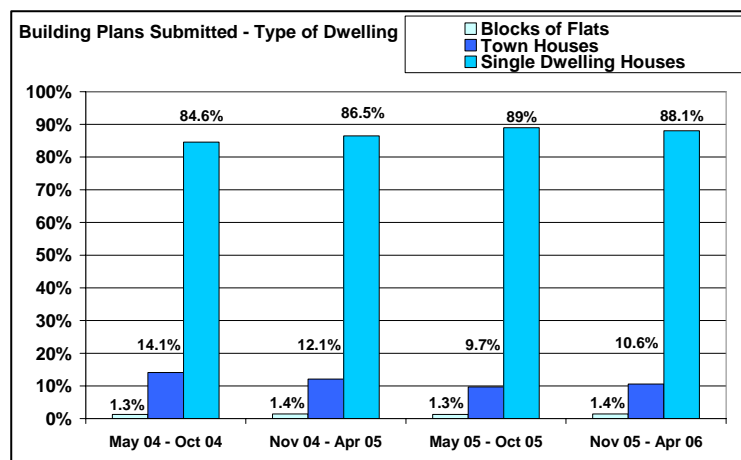
Source: City of Cape Town (2006) Building Plans Tracker

Residential Land Use - Properties (2000)

Low-density	Medium-density	High-density
94.8%	4.0%	1.2%
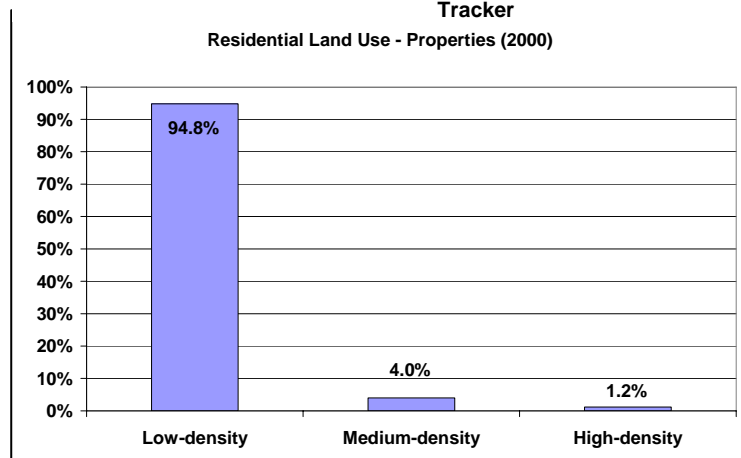
Source: City of Cape Town (2000) General Valuation

Residential Land Use - Dwelling Units (Formal Only)

■ Medium-densityDwellings
☐ High-density Dwellings

Year	Low-density Dwellings	Medium-density Dwellings	High-density Dwellings
1996	49%	13%	15%
2001	57%	7%	10%
2005	44%	15%	16%
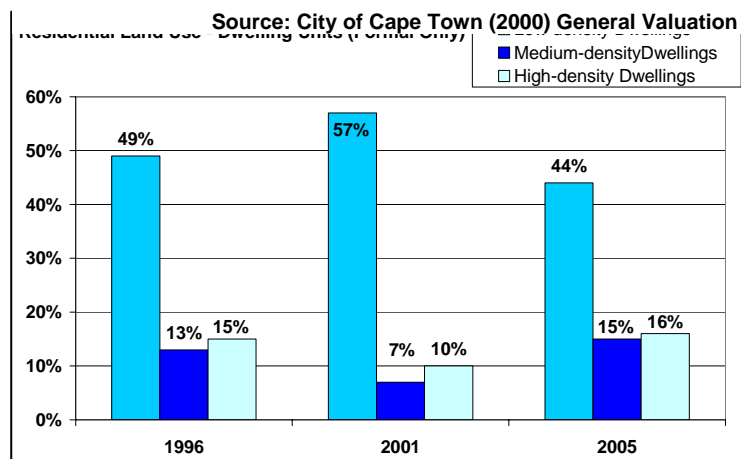
Source: Statistics South Africa General Household Survey, extracted by City of Cape Town Dept. of Stratefic Development Information and GIS

Urban sprawl refers to the expansion of the city into previously undeveloped or greenfield areas. In Cape Town this is particularly problematic, as much of the city's remaining undeveloped land is home to vulnerable, endangered, and critically endangered ecosystems. Outward sprawl also places a heavy burden on local government whose responsibility it is to provide services such as water, sewerage, and electricity to those areas. This can be a high-cost operation and may require many months to complete. The lack of efficient transport linkages to newly developing parts of the city is also a problem and contributes to growing congestion on the city's roads.

Statistics indicate that the majority of existing formal housing consists of single family low-density dwellings, and building plan statistics do not indicate any change in this pattern. Amongst wealthier home buyers large gardens are also an attractive feature, further adding to the problem. Low- density residential dwellings account for over 90% of properties in Cape Town and between 40% of 50% of formal dwelling units. This distinction is important, as one high-density property will contain a number of dwelling units. Unfortunately, data on the number of hectares transformed annually was not available at the time of finalising this report.

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A number of management and development options are in place to address this problem. There is limited space in which to expand in the city, and therefore urban densification is a vital part of Cape Town's future town planning strategy. Brownfield and greyfield redevelopment, where previously developed but currently derelict sites are redeveloped for residential, commercial or industrial usage, are also strategies that the City is exploring and implementing. Finally, enforcement of the urban edge is essential. This means that no new large-scale developments should be approved beyond the city's current urban development footprint.

It is essential to curb urban sprawl in Cape Town in order to promote efficiency and integrated human settlements in the city as well as to conserve the city's unique and endangered biodiversity.

COMPONENTS OF SUSTAINABILITY

Biophysical - Urban sprawl into natural areas destroys local ecosystems.

Economic - The uncontrolled outward spread of a city has negative economic impacts in terms of increased travel costs for those on the periphery, and high costs for provision of services to those areas.

Social - The loss of natural land used for recreational or aesthetic enjoyment negatively impacts on people's quality of li

POLICY LINKAGES

IMEP: Urbanisation and Housing - Recognition that environmental features and systems need protection from urbanisa

Urban Environmental Accord: Action 8 - Adopt urban planning principles and practices that advance higher density, mixed use, walkable, bikeable and disabled-accessible neighbourhoods, which coordinate land use and transportation with open space systems for recreation and ecological restoration.

See also:
* Green space per capita
* Extent of natural vegetation conserved
* Extent of invasion by alien invasive species
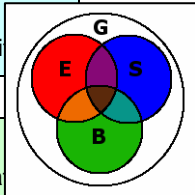
Water use per capita

Indicator: The daily volume of water used/consumed by all categories of water users within Cape Town per person.

Daily Water Use per Capita

Water Restrictions 00/01 and 04/05

Annual Water Use
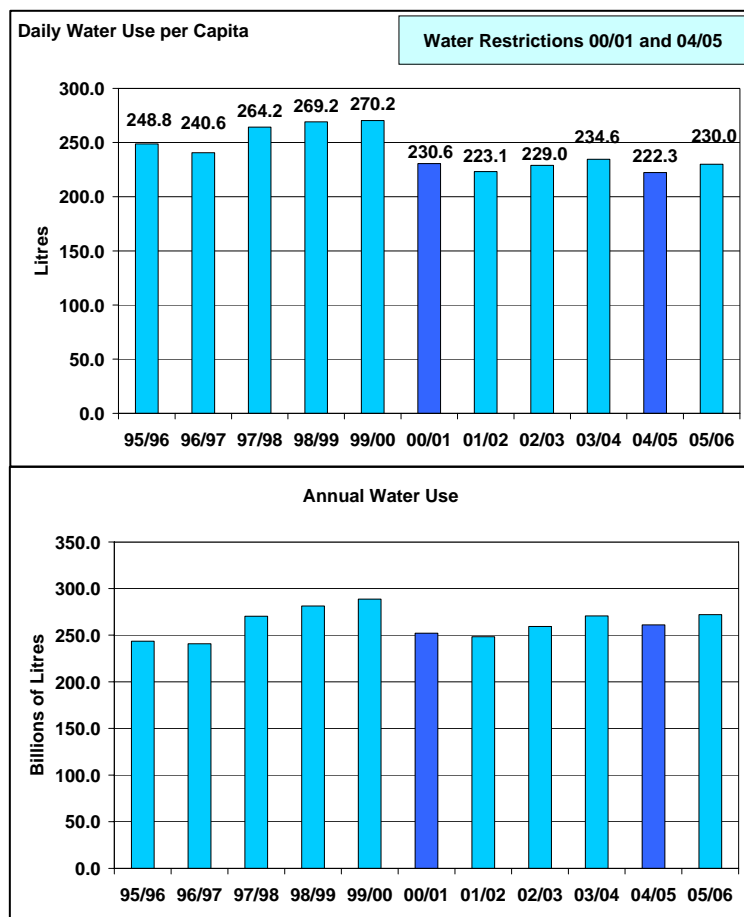
South Africa is a water-scarce country and Cape Town is a particularly water-scarce city. Long, hot and dry summers create a situation wherein the demand for water is greatest during the season when supply is limited.

This indicator includes unaccounted water as in Cape Town much of this water is used, although it is not paid for. This includes free water supplied to informal settlements as communal standpipes and water used for fire-fighting purposes. A proportion of this water is lost to leaks. However, most leaks occur at the end user, due to leaky plumbing and dripping taps and not due to leaks in the municipal water system. An ongoing programme to address this problem has been initiated in a number of low-income areas. In this programme local community members are trained as plumbers and given the necessary skills and training to fix leaks. This provides both an income for the plumber and a long-term financial and environmental benefit to the City.

In the past 11 years annual water use in Cape Town has remained at a relatively stable level, ranging from between 240 billion to 288 billion litres per year. A significant drop in water usage was noted in 2000/1, when water restrictions were first put in place, and this decrease has been maintained since then. It is important to note that water restrictions mainly affect the wealthy population of Cape Town, as these are the largest users of water for non-essential purposes, and therefore these restrictions are likely to have little impact on the day-to-day life of Cape Town's poor. It does, however, mean that luxury activities such as watering large gardens and washing cars are severely restricted.

Between 1995 and 2005 the population of Cape Town has steadily increased, causing a drop in per capita water usage. The World Health Organisation (WHO) recommends that each person needs a minimum of 50 litres of water per day for basic cooking, drinking and hygiene requirements. On average, it would appear as if

Capetonians have enough water to meet these requirements. However, this does not take into account the fact that some users will use much more than 50 litres per day. Currently it is impossible to measure how much is used in informal households, due to the fact that most are not individually metered.

In order for Cape Town to meet its goal of become a Sustainable City, water use per capita needs to remain at these relatively low levels. A slight increase in use was noted in 2005/6, and therefore residents of Cape Town need to be careful to ensure that water conservation is a high priority, although water restrictions may no longer be in place.
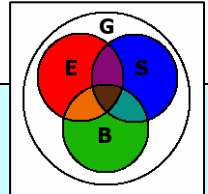
COMPONENTS OF SUSTAINABILITY

Biophysical - Overuse of water resources by humans negatively impacts on natural inland water systems.

Economic - Business and industry require water and therefore accessibility and supply must be insured.

Social - Adequate access to safe water (including free access to water for the poor) is essential for ensuring an acceptable standard of living.

POLICY LINKAGES

IMEP: Urbanisation and Housing - Recognition that environmental features and systems need protection from urbanisation.

Urban Environmental Accord: Action 19 - Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumption greater than 100 litres per capita per day, adopt and implement policies to reduce consumption by 10% by 2015.

See also:

* Access to water

* Proportion of effluent reused

Fresh water quality

Indicator: Water quality in aquatic ecosystems. This indicator uses the South African Scoring System (SASS) for aquatic invertebrate fauna as a biological indicator of water quality.

The last River Health Survey was conducted during 2004 and 2005. Updated results will not be available when this report is published, but will be made available later in the year. Therefore results seen in this report are those that were reported on in the 2005 Sustainability Report.

In the previous report it was noted that almost two-thirds (65%) of sites were listed as fair or poor. This indicates that sensitive or endangered species may be lost or under particular threat in those areas. Those rivers that fall into the 'poor' category are significantly degraded and usually heavily invaded by alien vegetation.

ASSESSED RIVER HEALTH	NATURAL	GOOD	FAIR	POOR
Southern Management Area (14 sites)	1	6	5	2
Eastern Management Area (11 sites)	2	2	4	3
Central Management Area (11 sites)	3	0	3	5
Northern Management Area (7 sites)	0	1	2	4
Total per category (43 sites)	6	9	14	14
Percentage per category (%)	14.0%	20.9%	32.6%	32.6%

RIVER HEALTH	ECOLOGICAL INTERPRETATION	MANAGEMENT INTERPRETATION
Natural	No or negligible modification	Relatively little human impact
Good	Biodiversity and integrity largely intact	Some human-related disturbance, but ecosystems generally in good state
Fair	Sensitive species may be lost, tolerant or opportunistic species dominant	Multiple disturbances associated with the need for social-economic development
Poor	Mostly tolerant or opportunistic species dominating, alien species invasion, individuals often diseased	High human densities or extensive resource depletion

Fresh water pollution in Cape Town is primarily caused by the discharge of treated sewage effluent and contaminated stormwater into the river system. Stormwater originating in unserviced or partially serviced informal settlements often contains significant amounts of untreated sewage as a result of residents dumping toilets buckets into the open environment or the stormwater system. Stormwater can also often contain a significant amount of dog faeces as a result of it not being cleaned away in urban areas, where it is then washed into the stormwater system. Failures in the wastewater management system can also contribute to the release of improperly treated sewage into stormwater systems. Polluted river water therefore often contains high levels of faecal coliform bacteria, suspended solids, and chemical nutrients, which can have substantial negative effects on both ecosystems and human health.

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During late 2005, Eskom power failures resulted in sewage pump stations overflowing into surface water systems around Cape Town and the resulting pollution impacted the health of many water bodies.

At the end of 2006 an extensive fish kill occurred at Rietvlei, as a result of oxygen depletion. Reasons for this depletion are currently under investigation, but may be linked to high levels of water pollution. It was estimated that 80 tons of dead fish were removed to ensure that there would be no adverse human health effects and that decomposition did not contribute to nutrient loading within the system.

Rivers and wetlands are integral parts of ecosystems as they provide a habitat for a diverse variety of plants, fish, birds, mammals and insects. The associated riparian zone along rivers and around wetlands also supports a rich community of plants and animals that are specially adapted to this transitional environment and therefore the rich and unique biodiversity of Cape Town is dependant on the maintenance of healthy aquatic ecosystems.

These ecosystems also have an important role to play in the provision of important services to the city, for example flood attenuation, dilution of pollutants, recreational opportunities, and aesthetic enjoyment, provided their functional integrity is maintained. It is therefore critical that management and rehabilitation of these fresh water systems is addressed in terms of conserving biodiversity and promoting the healthy functioning of ecosystems. Cape Town supports the national poverty alleviation 'Working for Wetlands' programme which aims to rehabilitate degraded wetlands while providing jobs and skills to poor communities. In Cape Town, a number of projects of this nature have been initiated and are coordinated by participants of the Peninsula Projects Advisory Committee. This programme includes the rehabilitation of wetlands at Zeekoevlei, Disa River, Soetvlei, Zoarvlei and the Blaauwberg Conservation Area.
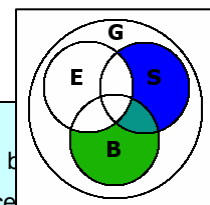
COMPONENTS OF SUSTAINABILITY

Biophysical - The quality of fresh water systems is a vital part of maintaining healthy ecosystems and ensuring b

Social - Good quality fresh water systems have an important role to play in terms of both environmental service recreational opportunities..

POLICY LINKAGES

IMEP: Water Resources: A commitment to ensuring the quality of coastal, marine and inland waters.

**IDP**: Strategic Focus Area 1 - Sustainable urban infrastructure.

See also:

* Coastal water quality

Coastal water quality

Indicator: Microbial water quality (using recreational guidelines) in coastal waters.

Source: City of Cape Town Coastal Water Quality Report 2005

Coastal water quality is measured fortnightly on both the Atlantic and False Bay coasts and assessed according to the South African Water Quality Guidelines for Coastal Marine Waters (Volume 2: Recreational Use). This set of rules includes both a stringent and a relaxed guideline for faecal coliform counts. In order for a beach to comply, it must meet both guidelines.

The graphs below show the percentage of beaches along both coastlines that comply with the required guidelines. In general, the False Bay coast has achieved a higher rate of compliance than the Atlantic coast. Unfortunately, in 2005 both the Atlantic and False Bay coasts reported poor levels of compliance.

Strict Guideline: 80% of samples must contain not more than 100 faecal coliform bacteria per 100 ml
Relaxed Guideline: 95% of samples must contain not more than 2 000 faecal coliform bacteria per 100 ml

Percentage Compliance with Strict Guideline — False Bay Coast / Atlantic Coast (1992–2005)

Percentage Compliance with Relaxed Guideline — False Bay Coast / Atlantic Coast (1992–2005)
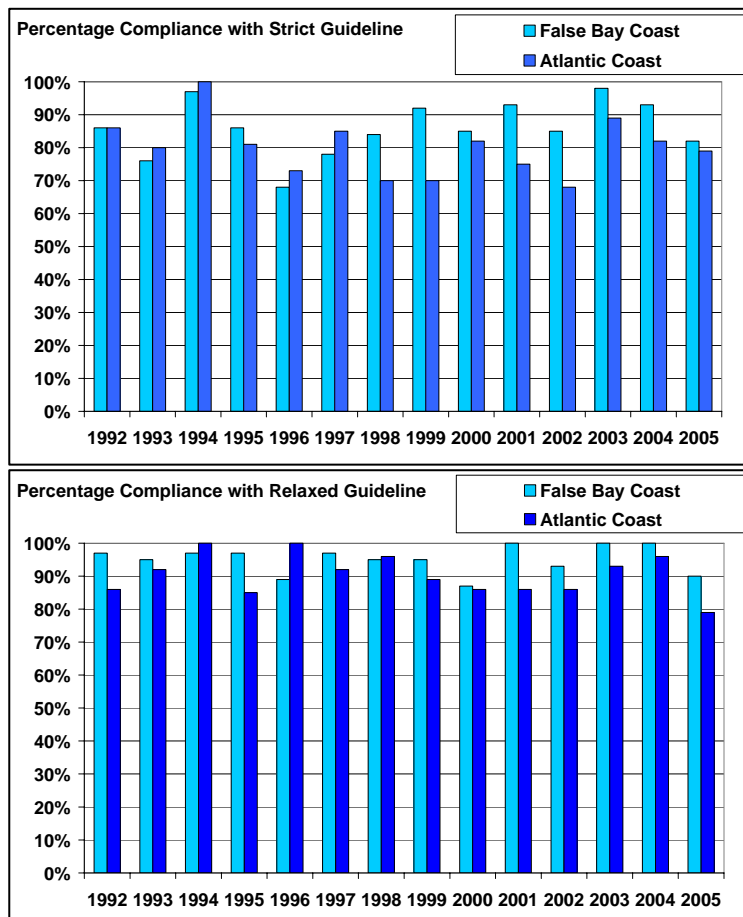
The primary reasons for coastal water pollution are the release of contaminated stormwater and improperly-treated sewage effluent into the marine environment. This happens for a number of reasons. Often stormwater originating in partially-serviced or unserviced informal settlements contains untreated sewage, as a result of residents dumping toilets buckets into the open environment or the stormwater system. After heavy rain, stormwater can also often contain a significant amount of dog faeces. This is a result of dog faeces not being cleaned away in urban areas, where it is then washed into the stormwater system. Improperly treated sewage effluent is another significant contributor to poor water quality in Cape Town. Wastewater treatment works release untreated effluent for a number of reasons: failure of the system due to dumping of chemicals into the sewerage system by industry; failure due to technical or mechanical

breakdowns at the plant; and insufficient capacity of wastewater treatment works to handle the amount of effluent requiring treatment.

Therefore, in order to ensure an acceptable level of coastal water quality, the following actions are necessary. Firstly, the City needs to address the issue of improper and insufficient sewage disposal in informal areas. Secondly, ongoing cleansing operations in the city need to ensure the proper removal and disposal of dog faeces. Law enforcement officers also have a role to play in this regard, by issuing warning and fines to those who fail to dispose of their dog's faeces. Finally, and perhaps most critically, the City needs to address failures in the wastewater treatment system by increasing the capacity and number of treatment plants and ensuring regular maintenance to prevent the breakdown of equipment.

COMPONENTS OF SUSTAINABILITY

Biophysical - The quality of coastal water systems is a vital part of maintaining healthy coastal ecosystems and insuring biodiversity.

Economic - Clean, safe coastal water is necessary to ensure sustained tourism which is an important sector of the local economy.

Social - Adequate access to safe water (including free access to water for the poor) is essential for ensuring an acceptable standard of living.
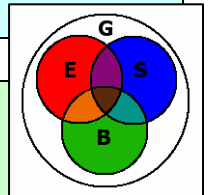
POLICY LINKAGES

IMEP: Water Resources: A commitment to ensuring the quality of coastal, marine and inland waters.

IDP: Strategic Focus Area 1 - Sustainable urban infrastructure.

See also:

* Fresh water quality

Proportion of effluent reused
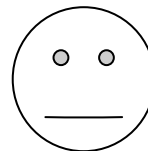
Indicator: The proportion of treated effluent (wastewater) that is reused as compared to the total amount of treated effluent received.

Cape Town is a water-scarce city and as such the implementation of water-efficient policies and technology is of key importance for the long-term sustainability of the city. The reuse of treated effluent offers the City an excellent opportunity to save potable water.

Proportion of Effluent Reused

Year	Proportion
2005	6%
2006	7%
2015 Target	23%
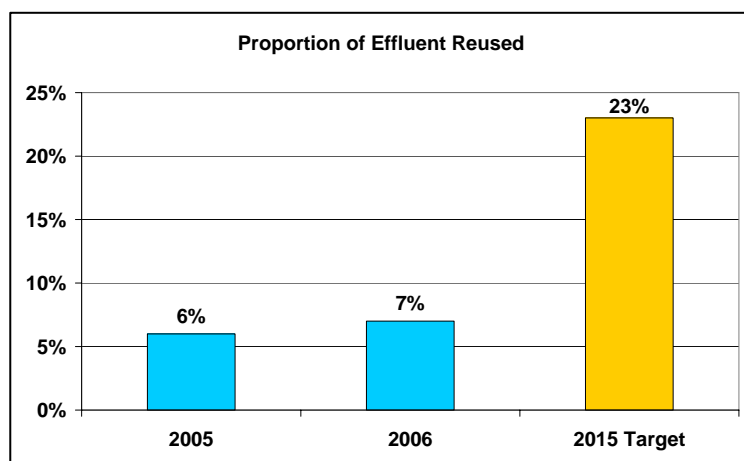
In 2005 approximately 6%, or 31 million litres per day, of wastewater treated in Cape Town was reused. In 2006 this increased marginally to 7%, or 38 million litres per day.

Treated effluent is available to the consumer at a significantly cheaper price than potable water. It is therefore an economically feasible alternative for certain industries, particularly where water is used as a coolant or for boilers, and is not involved in the production of food or other consumable products. Treated effluent is also popularly used worldwide as a water source for irrigation of large areas of cultivated lawn, especially sports fields and golf courses. The social benefits of using treated effluent are clear in the case of school and community sports, as the use of treated effluent enables the facilities to be maintained at a high standard with significantly reduced maintenance costs.

In 2005 the City of Cape Town completed significant upgrading of the Bellville, Parow and Kraaifontein wastewater treatment works, including the installation of additional pumps and filtering equipment[xiv]. In the same year, construction began on a tail-end dam at Potsdam WWTW in order to ensure a constant and reliable supply of treated wastewater to large consumers in the area. This dam has been designed and constructed in an environmentally sustainable manner. This dam will enable the City to improve its level of service and bring new consumers on board.

The City has clear and realistic goals for increasing the use of treated wastewater in Cape Town and expects the reuse of treated effluent to increase significantly in the near future. It has established an economically feasible target for the reuse of treated effluent of 23%, or 117 million litres per day, by 2015.

COMPONENTS OF SUSTAINABILITY

Biophysical - Reusing effluent means that less water needs to be drawn out of natural systems.
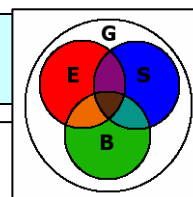
Economic - Treated effluent is available to industry at a cheaper rate than potable water,

allowing large industries to operate more efficiently.

Social - Reuse of treated effluent for industrial activities means greater amounts of potable water are free to be used by residents. Treated effluent is often used for irrigation of sports fields, especially in poorer areas, providing an important recreational space for local communities.

POLICY LINKAGES

IDP: 2020 Goal - Water use and waste production down 30%.

IMEP: Water Resources - An acknowledgement that all residents of Cape Town have the right to clean, potable and adequate water resources.

Urban Environmental Accord: Action 21 - Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharges by 10% in seven years, through the expanded use of recycled water and the implementation of a sustainable urban watershed planning process that includes participants of all affected communities and is based on sound economic, social, and environmental principles.

See also:

* Water use per capita

Landfill lifespan

Indicator: The remaining available space or 'lifespan' for both general and hazardous waste in Cape Town's landfill sites, in terms of the number of remaining months or years in which the landfill can be operational.

Landfill Lifespan Remaining (Years) at current rates of Waste Disposal

☐ Short Term
■ Long Term

Brackenfell: Closed
Faure: Closed
Swartklip: Closed
Bellville: 1 (Short Term), 6 (Long Term)
Coastal Park: 2 (Short Term), 8 (Long Term)
Vissershok: 1.5 (Short Term), 12 (Long Term)
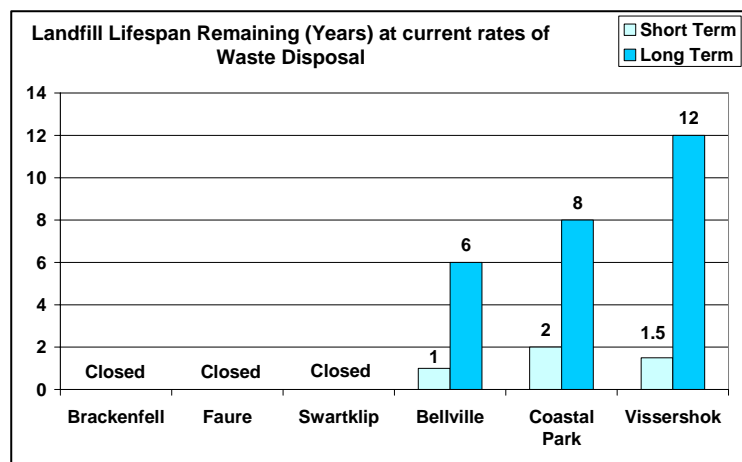
Cape Town is currently experiencing a landfill airspace problem. As can be seen from the graph, three of Cape Town's landfills have now reached capacity and are due to stop receiving waste in the near future. The remaining three are rapidly running out of space for the substantial amounts of waste generated by the city, although construction of new cells in those landfills is underway. Construction of a new regional landfill is expected to be completed in 2013 and will serve Cape Town and surrounding areas.

Even with the construction of new cells Cape Town's existing landfills are expected to be full by 2025. This timeframe is based on current rates of waste disposal. However, Cape Town's disposal of waste is growing, and if it continues to grow, these dates can be expected to be substantially brought forward. Although 2025 may seem far away to many citizens of Cape Town, in terms of long-term city planning this is a problem that needs to be urgently addressed.

Landfill site	Expected date of closure at current rates of waste disposal
Brackenfell	closed
Faure	closed
Swartklip	closed
Bellville	2013 – 2014
Coastal Park	2016 – 2018
Vissershok	2020 – 2025

Internationally, the use of landfills is increasingly seen as an unsustainable option, due to their negative ecological and social impacts. Landfills are also costly to maintain and occupy land which could be used for constructive purposes. Therefore, efforts are underway in most developed countries to reduce the reliance on landfill as a method of waste disposal. Waste minimisation efforts are focused on the three 'Rs' - reduce, reuse and recycle. Reduction of waste is the most important of these, and is focused on waste prevention through the redesign of products and packaging. Reuse simply involves reusing a product instead of throwing it away, such as a plastic shopping bag or plastic mineral water bottle. Recycling is a process whereby products such as glass, metal tins and a variety of plastics are melted down or ground up to be made into another kind of product.

Recent rises in the price of certain raw materials, especially oil, means that recycling has become economically feasible for the first time.

Approximately 65% of the domestic waste stream consists of organic matter, including kitchen and garden waste. The remaining 35% contains significant amounts of recyclable materials including paper, glass, plastics, cans, and other metals[xv].

The City of Cape Town Solid Waste Department is engaged in plans to significantly reduce the amount of waste sent to landfill, although these plans are not yet at the implementation stage. These plans include the separation of household waste in order to facilitate recycling, composting of most household organic waste, and recycling of paper, glass, metals and most types of plastic.

Other initiatives are focused on reducing waste at the source by working with retailers and distributors to reduce unnecessary packaging and reuse packaging, such as boxes and pallets, where feasible. Concrete plans as to how this will be achieved are not yet in place. However, the City is currently drafting a new Waste Management By-law, which will address many of these issues.
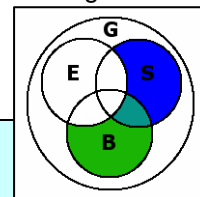
COMPONENTS OF SUSTAINABILITY

Biophysical - Expanding landfills into unused land negatively impacts on the ecology of those areas.

Social - Expanding landfills into unused land negatively affects people's enjoyment of natural open space and reduces land that can be used for housing or agriculture.

POLICY LINKAGES

IMEP: Waste - A commitment to the need for an integrated waste management strategy.

Urban Environmental Accord: Action 4 - Establish a policy to achieve zero waste to landfills and incinerators by 2040.

See also:

* Waste disposal per capita

Waste disposal per capita

Indicator: The amount of waste disposed per capita per year.

Waste disposed per capita (kilograms per year)

Year	Value
98/99	495.8
99/00	510.1
00/01	533.6
01/02	568.3
02/03	554.4
03/04	655.1
04/05	636.8
05/06	751.3
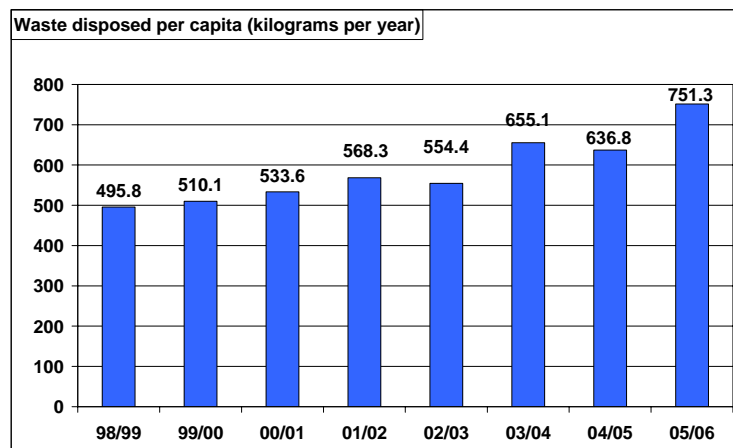
This indicator reports on the amount of waste sent to landfill each year in Cape Town. In addition to the waste sent to landfill, approximately 570 000 tonnes of garden waste are composted each year in Cape Town. This composting is carried out by private contractors employed by the City, and the good quality compost is then sold to the public for gardening and agricultural purposes. Composting of garden waste removes a significant amount of waste from the waste-stream sent to landfill and as such plays an important role in the conservation of landfill space.

However, almost 100% of household waste is sent to landfill, where it is buried. In Cape Town there is currently no waste separation at source and little waste separation at the landfill site, and so recycling of waste is almost impossible. Significantly, waste disposal per capita has grown substantially over the past eight years. In a sustainable society, waste disposal per capita should remain at constant levels over time, or show a slow decrease. The increase in this indicator means that not only is the city as a whole throwing away more waste each year, but each individual citizen is producing more waste than the previous year. This is also indicative of an expansion of Cape Town's economy; as more people become economically active, and able to consume manufactured goods, the rate of waste generation increases.

The amount of waste disposed in Cape Town each year is a growing problem and, as highlighted in the previous indicator, one with no immediate solution. Possible solutions for curbing waste disposal include working with major retailers and distributors to reduce packaging waste at source, and the implementation of recycling programmes to remove the majority of recyclable and compostable items from the waste stream. This is a problem that needs to be urgently addressed, as the City's landfills are rapidly running out of space.

COMPONENTS OF SUSTAINABILITY

Biophysical - Expanding landfills into unused land negatively impacts on the ecology of those areas.

Social - Expanding landfills into unused land negatively affects people's enjoyment of natural open space, and red[...] that can be used for housing or agriculture.
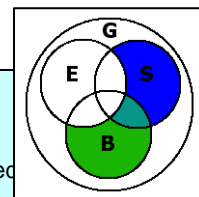
POLICY LINKAGES

IMEP: Waste - A commitment to the need for an integrated waste management strategy.

Urban Environmental Accord: Action 6 - Implement 'user-friendly' recycling and composting programmes with the goal of reducing by 20% per capita solid waste disposal to landfill and incineration in seven years.

See also:

* Landfill lifespan

HIV/AIDS prevalence
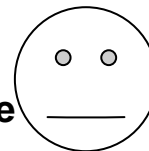
Indicator: The prevalence of HIV/AIDS per year, as determined by the Department of Health antenatal survey.

The prevalence of HIV/AIDS in Cape Town is significantly lower than the national average of approximately 28%. However, a rate of almost 16% is still far higher than that for developed nations and represents over half a million Capetonians.

HIV/AIDS Prevalence

Year	Prevalence
2001	8.6%
2002	12.4%
2003	13.1%
2004	15.9%
2005	15.8%
2006	15.9%
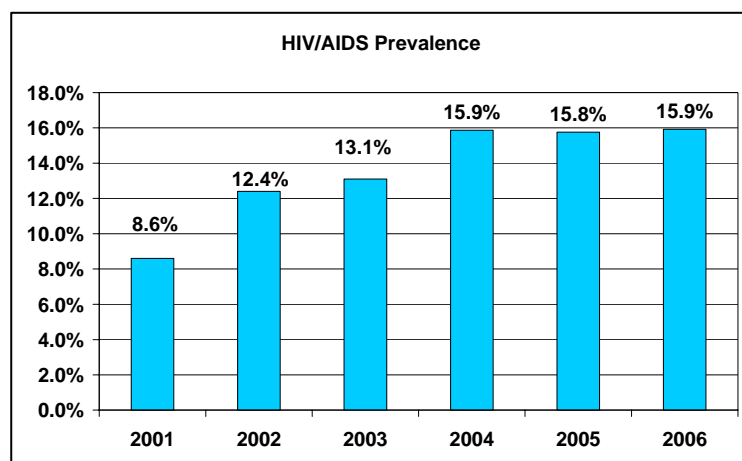
Life expectancy in South Africa has fallen significantly in the past decade due to the spread of HIV/AIDS. The CIA World Fact Book estimates that life expectancy in South Africa stands at approximately 43 years of age. Due to the lower rate of HIV/AIDS prevalence in Cape Town it can be determined that life expectancy would be higher than the national average, but still significantly reduced.

In 2001 HIV/AIDS became the leading cause of death in Cape Town, and has remained so ever since. Reasons for this high death rate include high levels of poverty in those areas worst affected by HIV/AIDS , lack of affordable access to ARVs and high levels of TB infection due to overcrowding and substandard living conditions.

The increase shown on the chart is more likely than not a reflection of better record-keeping and a higher rate of HIV/AIDS testing, rather than a real increase in the percentage of citizens infected with HIV/AIDS . It appears that the prevalence of HIV/AIDS in the population has stabilised at approximately 16%, which may mean that efforts by the City, Provincial, and National departments of health to curb the rate of new infections have been successful. This average may be misleading, as statistics for each suburb or health district are not available at this time. In the past the rate of infection in poor, largely informal areas has been significantly higher than the rest of the city.

It is essential that the City of Cape Town, in partnership with Provincial and National Government continue to provide education and prevention programmes in order to ensure an ongoing decrease in the number of new infections.

COMPONENTS OF SUSTAINABILITY

Economic - Living with HIV/AIDS reduces people's capacity to work and thus impacts negatively on both the economy and the individual's ability to meet their own basic needs.
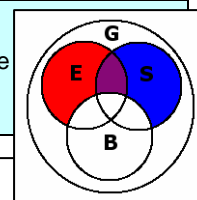
Social - HIV/AIDS is often stigmatised and infected individuals may find it hard to be accepted in their
community; the psychological burden of coming to terms with the disease is also a concern.

POLICY LINKAGES

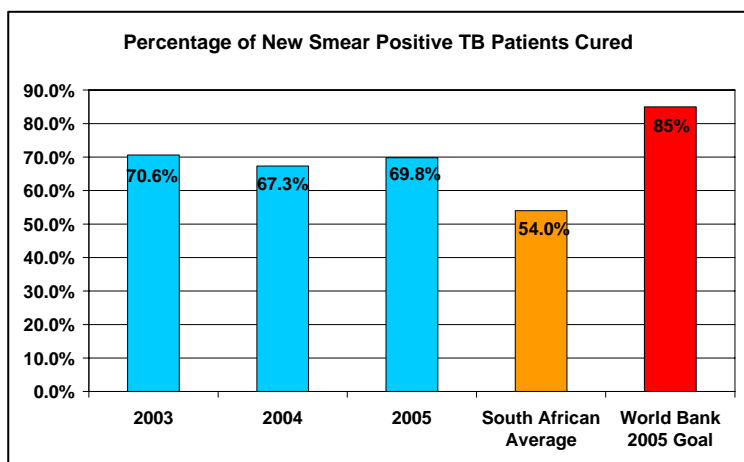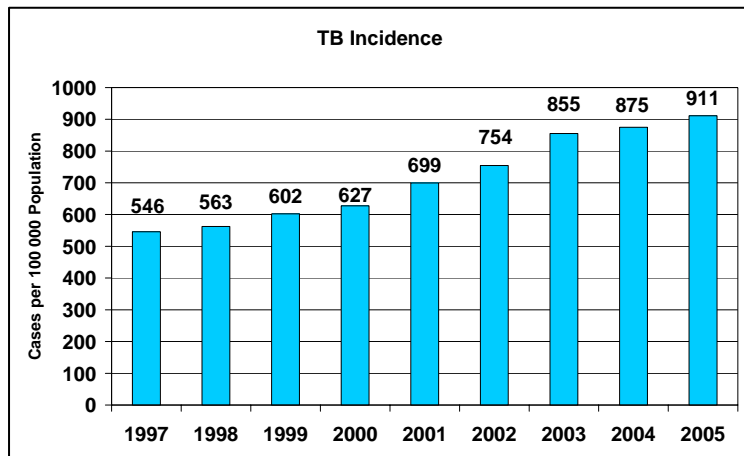**MDG Goal 6: Target 7 -** Have halted by 2015, and begun to reverse the spread of HIV/AIDS.

See also:

* Tuberculosis incidence

* Leading cause of death

Tuberculosis incidence

Indicator: The incidence (number of new cases per 100 000 population) of all forms of TB per year.

TB Incidence

Cases per 100 000 Population

Year	Cases
1997	546
1998	563
1999	602
2000	627
2001	699
2002	754
2003	855
2004	875
2005	911

Percentage of New Smear Positive TB Patients Cured

Category	Percentage
2003	70.6%
2004	67.3%
2005	69.8%
South African Average	54.0%
World Bank 2005 Goal	85%

The incidence of TB is defined as the number of new cases per year per 100 000 population. The Western Cape has one of the highest incidences of TB in the country[xvi], second only to KwaZulu-Natal. Cape Town has a significantly higher rate of TB incidence than the South African average, with an all-time high incidence rate of 911 cases per 100 000 population in 2005. TB incidence tends to be significantly higher in dense urban environments and this tendency has been recognised in developed and developing countries worldwide.

Conditions in poor areas in Cape Town exacerbate the TB problem in the city. Overcrowding and damp, substandard living conditions promote the rapid spread of TB. Furthermore, the relatively high rate of HIV infection (16% citywide, but up to 28% in some low-income areas of Cape Town) means that a large percentage of the population are living with compromised immune systems, meaning that they develop TB significantly easier than if they were healthy.

It is estimated that the co-infection rate (percentage of those infected with TB that also have HIV/AIDS) of TB and HIV/AIDS in South Africa is approximately 66.5%. However, in the Western Cape the co-infection rate is estimated to be a lower 50.5%. It has been acknowledged by the Department of Health that the Western Cape had a TB problem long before it had an HIV/AIDS problem and that other underlying causes are to blame for this current epidemic.

The cure rate in Cape Town and the Western Cape is the highest in the country (health-e), approximately 70% as compared to the national average of 54%. The City of Cape Town is dedicated to assisting South Africa in achieving the Millennium Development Goals. As part of this commitment the City is tasked with reducing the number of new TB infections, while constantly improving the percentage of new patients cured. Unfortunately,

the current cure rate, although higher than South Africa's average, is substantially below the World Bank 2005 target of 85%. New infections continue to grow, with 2005 seeing the highest incidence of new infections to date. In order to prevent the spread of infection, Cape Town must raise its cure rate and ensure that all TB patients complete the full course of medication, thereby preventing relapse and beginning to halt the spread of the disease.

COMPONENTS OF SUSTAINABILITY

Economic - Suffering from TB reduces people's capacity to work and thus impacts negatively on both the economy and the individual's ability to meet their own basic needs.

Social - TB negatively affects people's health, often for long periods of time, and therefore reduces quality of li
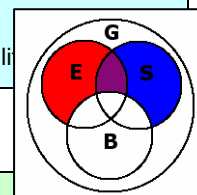
POLICY LINKAGES

MDG Goal 6: Target 8 - Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

See also:

* **HIV/AIDS prevalence**

* **Leading cause of death**

Leading cause of death

Indicator: The top five leading causes of death per year.

The top five leading causes of death from 2001 to 2005 provide a mixed picture of disease in Cape Town. The statistics show a co-occurrence of long-term non-communicable diseases, often referred to as lifestyle diseases, and communicable, infectious disease.   This pattern of cause of death is somewhat unusual outside of South Africa. The so-called 'lifestyle' diseases - Ischemic Heart Disease and Cerebrovascular Disease - are the leading causes of death in most Western developed countries. They are indicative of a wealthy population as well as high levels of medical treatment which have reduced the death rate from infectious, but readily treatable, diseases. However, most developed countries have low rates of HIV/AIDS and TB. Deaths from HIV/AIDS and TB are associated worldwide with poverty, lack of education and lack of access to medical treatment.

	2001	2002	2003	2004	2005
1	Ill-defined and unknown causes	HIV/AIDS	HIV/AIDS	HIV/AIDS	HIV/AIDS
2	Cerebrovascular diseases	Cerebrovascular diseases	Ill-defined and unknown causes	Ill-defined and unknown causes	Cerebrovascular diseases
3	HIV/AIDS	Ill-defined and unknown causes	Cerebrovascular diseases	Cerebrovascular diseases	Ill-defined and unknown causes
4	Ischemic heart disease	Ischemic heart disease	Ischemic heart disease	Ischemic heart disease	Ischemic heart disease
5	Assault by firearm	Assault by firearm	Pulmonary Tuberculosis	Pulmonary Tuberculosis	Pulmonary Tuberculosis

These statistics reflect the stark contrasts that are present in Cape Town, and indicate that although South Africa is in many ways a developed country, it is still dealing with many health issues characteristic of a developing country.

A key plan of action in reducing deaths from HIV/AIDS and TB must include universal access to anti-retroviral treatment when such treatment becomes necessary, as well as programmes to improve compliance with TB treatment. Prevention campaigns are widespread. However, new strategies are needed in order to reduce the increasing rate of HIV and increase public compliance with TB treatment.

Cerebrovascular and Ischemic heart diseases are characteristic of wealthier populations, because they are most often caused by modern lifestyles. High blood pressure, high cholesterol, obesity, diabetes and smoking are all risk factors that lead to increased chances of developing these diseases. Prevention of these conditions includes eating a diet low in animal fats, refined sugars, and salt, engaging in moderate exercise at least three times a week, abstaining from smoking, limiting alcohol consumption and ensuring regular monitoring of blood pressure.
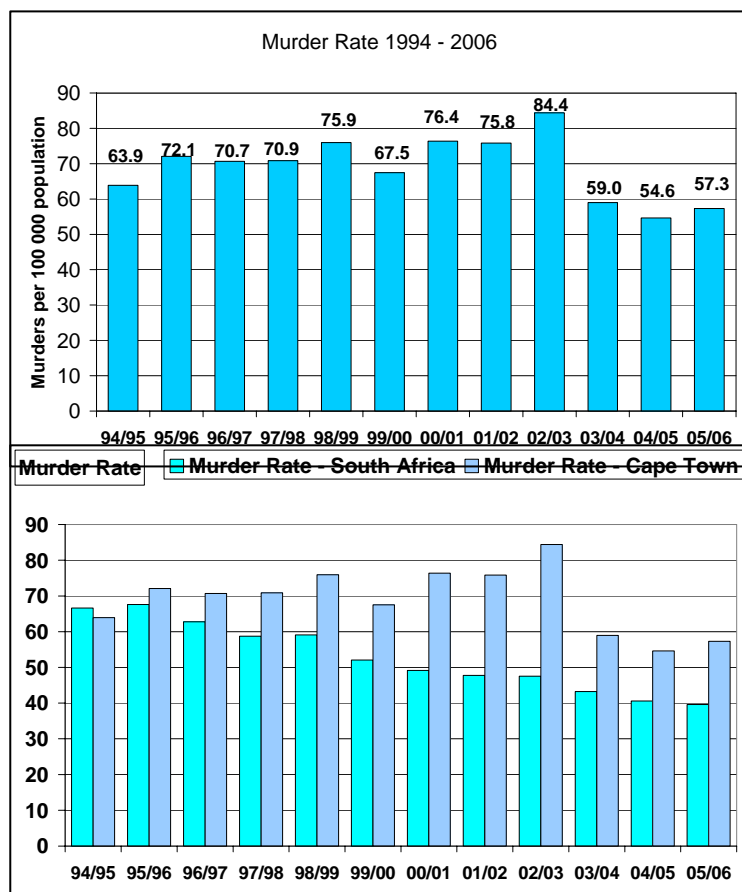
Although communicable diseases such as HIV/AIDSand TB are a pressing issue that needs significant attention, it is also necessary for the City to address the high incidence of 'lifestyle' diseases in the population. Strategies

include education programmes implemented at a schools and primary health care facilities on ways to prevent these diseases, as well as encouraging citizens to undergo regular monitoring of blood sugar and blood pressure.

COMPONENTS OF SUSTAINABILITY

Economic - A high incidence of communicable and infectious diseases places a significant strain on the public health system, and reduces people's ability to work and provide for their own basic needs.

Social - Living with chronic diseases, HIV/AIDS, and TB negatively affects people's health and well-being and reduces quality of life.
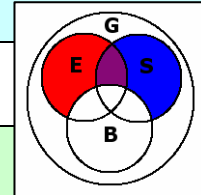
POLICY LINKAGES

MDG Goal 6: Target 7 - Have halted by 2015 and begun to reverse the spread of HIV/AIDS.

MDG Goal 6: Target 8 - Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

See also:

* HIV/AIDS prevalence

* Tuberculosis incidence

* Incidence of murder

Incidence of murder

Indicator: The murder rate, defined as the number of murders reported per 100 000 population per year.

Source: South African Police Service (Crime Statistics) and City of Cape Town Dept. of Strategic Development Information (Population Statistics)

Murder Rate 1994 - 2006

Year	Murders per 100 000 population
94/95	63.9
95/96	72.1
96/97	70.7
97/98	70.9
98/99	75.9
99/00	67.5
00/01	76.4
01/02	75.8
02/03	84.4
03/04	59.0
04/05	54.6
05/06	57.3

Murder Rate — Murder Rate - South Africa — Murder Rate - Cape Town

In previous years Cape Town has been criticised for having one of the highest murder rates in the world. In the preceding Sustainability Report it was noted that Cape Town has a murder rate 10 times higher than that of New York City.

The high murder rate in the city has had significant negative social impacts. In 2005 and 2006 a spate of 'Bush of Evil' murders of children and teenagers in the Cape Flats caused an outcry in local communities, with community leaders demanding that more action be taken to protect their people. Murder is an extremely distressing crime for family members and friends to deal with, and can lead to the traumatisation of entire communities, as seen in these cases.

Crime is not only a social ill, but has economic implications as well. The high murder rate of South Africa generally, and Cape Town specifically, has tarnished the city's international reputation. A high crime rate has a significant negative impact on tourism and foreign direct investment, both of which are key contributors to the South African economy.

Cape Town is responsible for approximately 10% of South Africa's murders although it has only 7% of the country's population. In 2003/04 the murder rate in Cape Town appears to have dropped significantly and remained at a lower rate than in the previous 10 years. Although a murder rate of 57.3 murders per 100 000 population is still unacceptably high and well above the national average, it is encouraging to note that the rate has dropped off significantly.

At this point, it is not certain what the cause of this change is. Sudden changes in crime statistics can often be blamed on changes in reporting rates. However, murder is internationally considered to be one of the most accurate and reliable crime statistics because the presence of a body indicates that a crime has been committed, independent of the public's willingness to report a crime.

Although the exact causes for this positive change are not immediately apparent, it is an unquestionably encouraging trend. The fact that the murder rate appears to have been lowered significantly for the past three years indicates a sustained positive change, although a slight increase in 2006 was noted. Continued hard work and vigilance by the Police Services will contribute to a further lowering of this crime rate, although their achievement to date must be recognised.
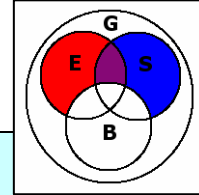
COMPONENTS OF SUSTAINABILITY

Economic - High levels of crime discourage international investment and tourism.

Social - High levels of crime increase stress levels among residents and create an atmosphere of fear and distrust.

POLICY LINKAGES

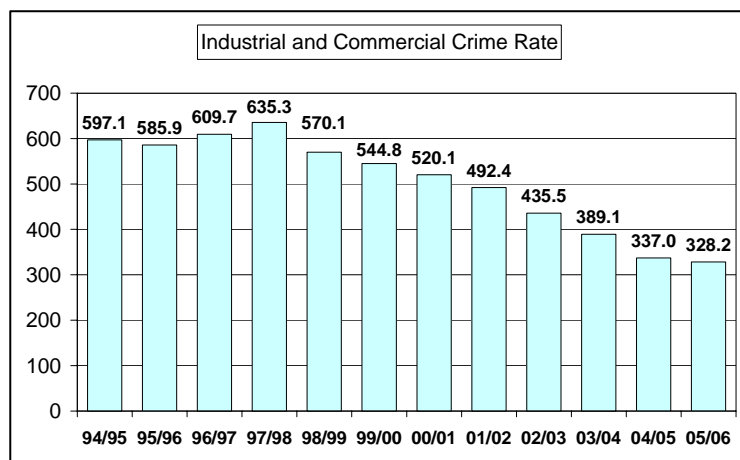**IDP:** 2020 Goal - Levels of violent crime reduced by 90%.

IMEP: Safety and Security - A commitment to crime prevention and reduction.

See also:

* Leading cause of death

Incidence of rape and indecent assault
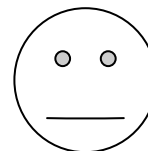
Indicator: The rape and indecent assault rates, defined as the number of cases reported per 100 000 population per year.

Source: South African Police Service (Crime Statistics) and City of Cape Town Dept. of Strategic Development Information (Population Statistics)
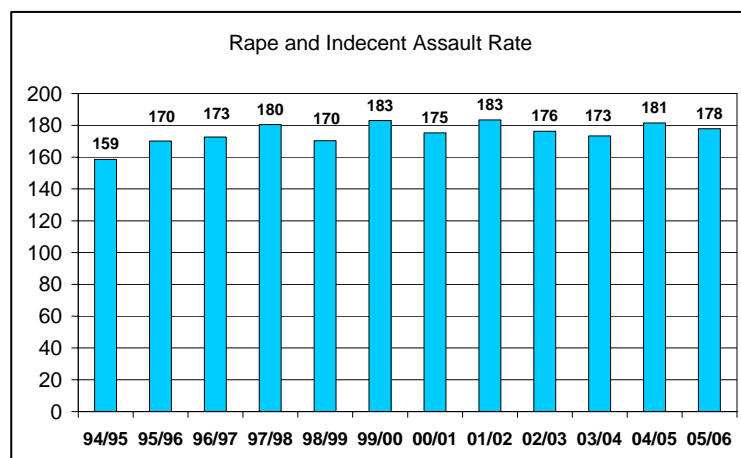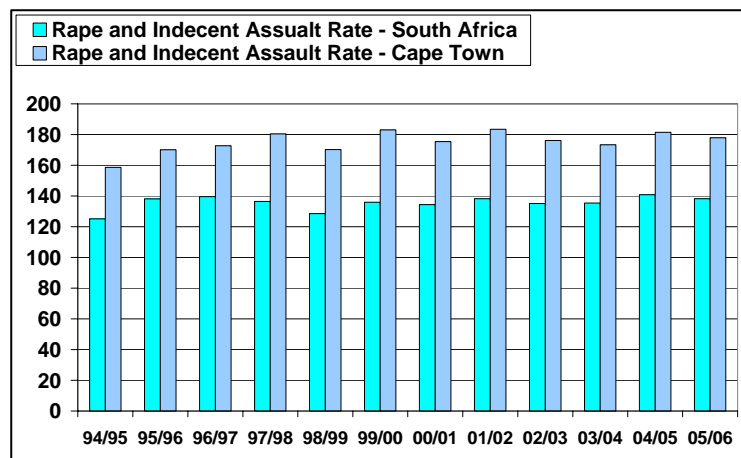
This indicator has been modified from the previous report in order to include statistics on indecent assault, as well as rape. In South Africa the definition of rape is narrow, and excludes a number of crimes of a similar nature. This includes rape of a man by a man, anal rape and object rape.

These crimes are classified as indecent assault, a less serious crime and one which carries a lighter sentence. Rape survivors' rights groups (such as Rape Crisis and POWA) have argued for the inclusion of these crimes in the definition of rape in order to acknowledge the seriousness of the offence, and ensure that offenders are subject to an appropriate level of justice. The proposed Sexual Offences Amendment Bill (Bill 50-03), first released in draft format in 2002 includes many crimes currently classified as indecent assault, in the category of rape. Unfortunately, the enactment of this bill has been delayed and it has been referred to the National Council of Provinces for further analysis.

The rate of rape in Cape Town is unacceptably high with over 5 700 cases of rape and indecent assault reported in 2006. Cape Town is responsible for approximately 9% of South Africa's cases of rape and indecent assault, although it only has around 7% of the country's population. The rate has remained shockingly high since 1994 and has shown slight increases both in Cape Town and nationally.

Although all crimes can have potentially traumatic effects on the victims, rape and indecent assault are especially traumatic events. The psychological consequences are significant with many survivors experiencing fear of going out, inability to sleep, flashbacks to the event and other symptoms of Post- Traumatic Stress Disorder. The physical consequences of rape can also be devastating due to the increased likelihood of HIV

transmission and the violent and rough nature of the act. Post-exposure prophylaxis is available to those who have been raped. However, this requires the survivor to report the crime, something which many feel unable to do. The high rate of rape in Cape Town also creates a culture of fear among female citizens, and places an unfair burden on women to ensure their own safety.

According to statistics calculated by the Medical Research Council, fewer than one in nine women report rape to the police[xvii]. Estimates by the SAPS have put the number of reported rapes as low as one out of 35[xviii]. The discrepancy in the figures is to be expected as research into this extremely sensitive topic is fraught with difficulties. Furthermore, it is the unfortunate reality that one woman may experience a number of rapes and sexual assaults over her lifetime and is unlikely to report all of them, especially if they occur within a romantic relationship or marriage. Additionally, historically low prosecution rates of around 7%[xix], and high-profile media reports of lenient sentencing of rapists contribute to underreporting.

It is unclear how best to tackle this pressing issue. What is clear is that the City cannot do it alone - partnership local communities, NGOs and Community-Based Organisations (CBOs) are a vital part of combating this crime. Ultimately, rape and indecent assault are symptomatic of a greater dysfunction in society, and therefore solving the problem will require working closely around social structures and inequalities that contribute to the prevalence of this kind of crime.
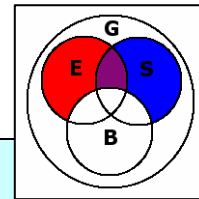
COMPONENTS OF SUSTAINABILITY

Economic - High levels of crime discourage international investment and tourism.

Social - High levels of crime increase stress levels among residents and create an atmosphere of fear and distrust.

POLICY LINKAGES

IDP: 2020 Goal - Levels of violent crime reduced by 90%.

IMEP: Safety and Security - A commitment to crime prevention and reduction.

Incidence of industrial and commercial crime

Indicator: The industrial and commercial crime rates, defined as the number of cases reported per 100 000 population per year.

Source: South African Police Service (Crime Statistics) and City of Cape Town Dept. of Strategic Development Information (Population Statistics)

Industrial and Commercial Crime Rate

Year	Rate
94/95	597.1
95/96	585.9
96/97	609.7
97/98	635.3
98/99	570.1
99/00	544.8
00/01	520.1
01/02	492.4
02/03	435.5
03/04	389.1
04/05	337.0
05/06	328.2

This indicator is defined as the number of crimes directed at industry or commerce, per 100 000 population. This includes burglary at business premises, robbery at business premises and commercial crimes such as fraud and forgery.

It is extremely encouraging to note that there has been a steady and sustained decline in all types of crime within this category.

This can be attributed to a number of factors. Firstly, improved physical security systems at business premises have made a significant impact, as business owners have become aware of the risk that unsecured premises face. Secondly, and perhaps more importantly, an improvement in anti-fraud and corruption practices in the workplace, together with improved electronic security systems within financial institutions have greatly contributed to a drop in commercial crime. The SAPS Commercial Crimes Division and the Scorpions unit have played a significant role in reducing this type of crime. The prosecution of numerous high-profile offenders have sent a clear message that this kind of crime will not be tolerated. Significantly, the initial drop in this category of crime coincided with the completion of the reorganisation of the SAPS Commercial Crimes Division in 1997[xx], which substantially improved their efficiency and effectiveness.

It is essential for Cape Town's economic future that crimes against commerce and industry continue to decline. This creates a considerably more desirable business environment for local and foreign investors, thereby encouraging economic growth in the city.
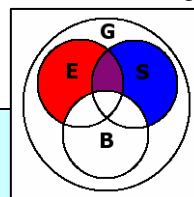
COMPONENTS OF SUSTAINABILITY

Economic – High levels of crime discourage international investment and tourism.

Social – High levels of crime increase stress levels among residents and create an atmosphere of fear and distrust.

POLICY LINKAGES

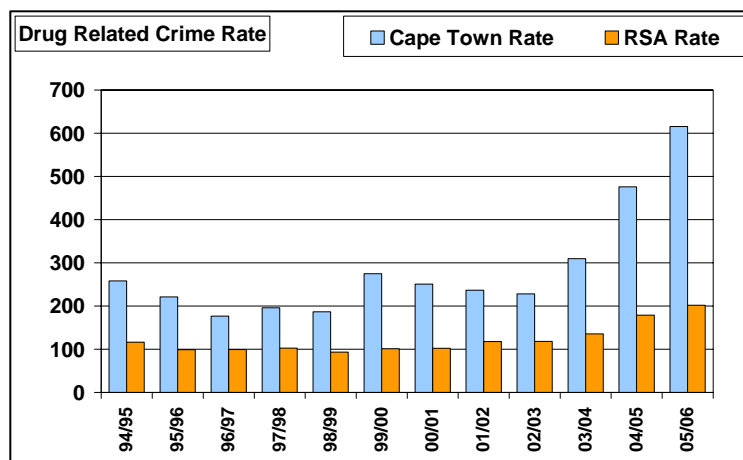**IDP:** 2020 Goal – Levels of violent crime reduced by 90%.

IMEP: Safety and Security – A commitment to crime prevention and reduction.

Drug use and drug-related crime

Indicator: The number of drug-related crimes reported per 100 000 population per year and the number of people seeking treatment for drug and alcohol addiction per year.

Source: South African Police Service (Crime Statistics) and City of Cape Town Dept. of Strategic Development Information (Population Statistics)

Drug Related Crime Rate — Cape Town Rate, RSA Rate (94/95 – 05/06)

Percentage of Patients seeking treatment with "Tik" as their primary drug of abuse — % of all patients, % of patients under 20

Source: SACENDU, 2006

This indicator is included for the first time in this report. Owing to the severe increase in this type of crime over the past three years, it was deemed necessary to include it in order to monitor progress. Drug-related crime includes the unlawful possession and use of drugs, as well as unlawful dealing in drugs.

It is clear that Cape Town has a considerably higher rate of drug-related crime than the South African average. Cape Town accounts for 21% of South African's drug-related crime, although it has only 7% of the country's population. Cape Town's drug-related crime has increased by 62% since 2001, to reach an all-time high of over 600 drug-related crimes per 100 000 population.

In 2004 methamphetamine, or 'tik' as it is known in Cape Town, emerged as a significant contributor to the drug problem in Cape Town[xxi].
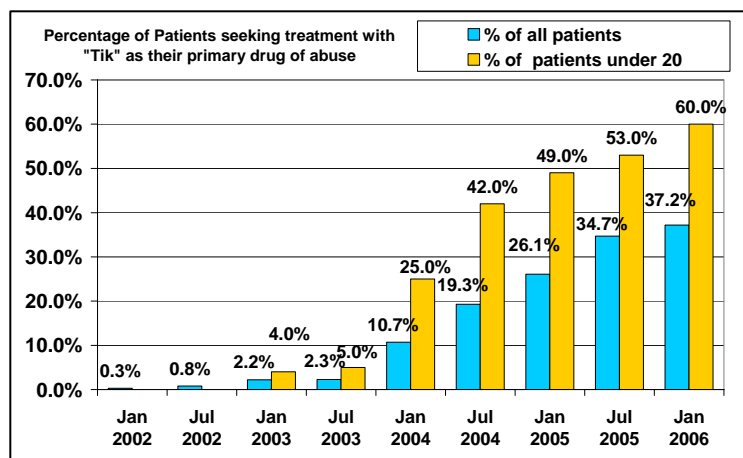
By mid 2005, methamphetamine had become the primary drug of abuse by patients under the age of 20 seeking treatment at Cape Town's drug counselling centres. One of the reasons why methamphetamine abuse has grown to such an extent is the fact that it is cheap, widely available and produces feelings of great power and confidence in the user, which means that it is extremely attractive to teenagers.

Methamphetamine use has largely replaced the Mandrax-marijuana combination that was previously the drug of choice amongst Cape Town's youth. Although all illegal drugs have significant health and social impacts, the rise of methamphetamine is a particularly worrying trend. Long-term use of methamphetamine, a powerful stimulant, has been strongly associated with an increase in violent behaviour, typified by states of extreme rage[xxii]. Whilst

long-term use of depressants such as marijuana, Mandrax and heroin has serious negative health effects on the user, these drugs are not associated with violent behaviour in the same way.

Urgent action is required from all relevant stakeholders in Cape Town - the City, Provincial and National Government, NGOs, CBOs and the private sector - in order to address this escalating problem. The long- term social impacts of high levels of drug abuse amongst the youth of the city could spell disaster for the city's future.

COMPONENTS OF SUSTAINABILITY

Economic - High levels of drug abuse and addiction among learners and youth have negative implications for the economy, as the ability to learn and work productivity suffer.

Social - Increasing levels of drug addiction exacerbate poverty, reduce quality of life and fuel crime. Long-term use of 'tik' causes violent outbursts and uncontrollable rage, putting individuals and communities at risk.

POLICY LINKAGES

IDP: 2020 Goal - Levels of violent crime reduced by 90%.

IMEP: Safety and Security - A commitment to crime prevention and reduction.
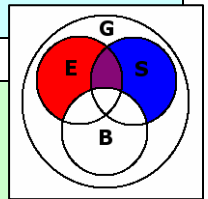
See also:

* Incidence of murder

* Incidence of rape

* Incidence of commercial and industrial crime

Access to water

Indicator: The percentage of both formal and informal households with access to safe drinking water at the basic service level. The 'basic service level' is defined as the presence of a tap within 200 m of a dwelling unit, with at least one tap per 25 dwelling units.

Access to Water

	Formal	Informal	Total
2005	100%	73.91%	96.4%
2006	100%	100%	100%
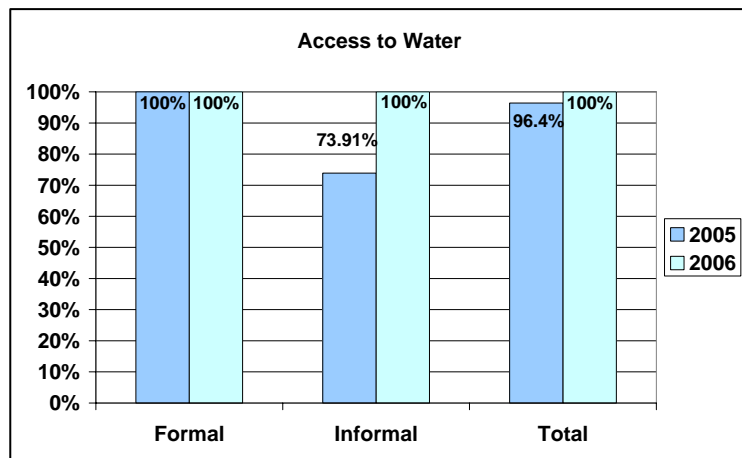
Access to clean, safe water is a fundamental human need. Water is required for drinking, cooking, washing and watering crops. The use of contaminated or untreated water for these purposes is a considerable health hazard. Therefore it is excellent to note that 100% of residents in Cape Town have access to a clean, safe water source within 200 m of their home, including a six-kilolitre free monthly allowance in formally metered areas.

According to the Department of Water Affairs and Forestry, the free basic allowance of six kilolitres of water per month per household is enough to provide each member of a family of eight with 25 litres per day. However, in order to ensure proper health and hygiene practice and prevent the spread of water-borne and water-washed diseases, the WHO recommends a minimum of 50 litres of water per person daily. The WHO asserts that it is difficult to ensure that laundry and bathing are adequately carried out at a basic level of service[xxiii]. Furthermore, they have called attention to the moderate health risk faced by residents of informal settlements using community standpipes, as they are often unable to collect enough water.

Although 100% of Cape Town's citizens have access to basic water supplies, the next challenge the City of Cape Town faces is maintenance and improvement of the level of service. It is vital that ongoing maintenance work of community standpipes and local water supply infrastructure is continued into the future.

Ideally, each resident of Cape Town should have access to clean, safe water within their own home. However, this can only be achieved when all housing in the city is formalised, a process which is expected to take many years.

COMPONENTS OF SUSTAINABILITY

Biophysical - The use of water resources for human consumption negatively affects the natural environment unless it is monitored and controlled.

Social - It is essential that all citizens have adequate access to safe water, including free access to water for the poor.

City of Cape Town
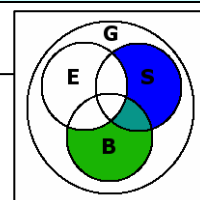
POLICY LINKAGES

IDP: 2020 Goal - Universal access to basic services.

IMEP: Water Resources - An acknowledgement that all residents have the right to clean, potable and adequate water sources.

MDG Goal 7: Target 10 - Halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

Urban Environmental Accord: Action 19 - Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumption greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by 10% by 2015.

See also:

* Water use per capita

* Access to sanitation

Access to sanitation

Indicator: The percentage of both formal and informal households with access to adequate sanitation, defined as flush toilets connected to the sewerage system.

Access to Sanitation
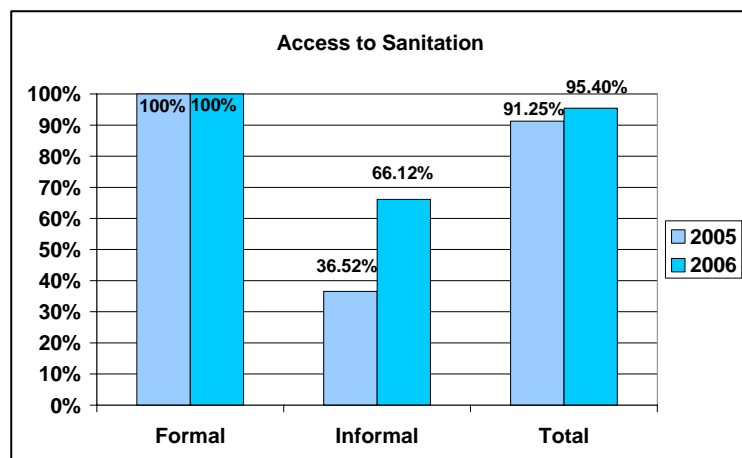
Access to clean, good-quality sanitation is an essential factor in the creation of dignified human settlements, a key goal of the City of Cape Town. The provision of basic sanitation is also an important part of the Millennium Development Goals, in terms of improving the lives of slum dwellers around the world.

It is therefore very encouraging to note that between 2005 and 2006 access to basic sanitation in informal areas increased by almost 30%, leading to an overall rate of access to basic sanitation of over 95%.

Basic sanitation is defined by the City of Cape Town as one flush toilet per five households. However, the definition of household is not exact, and this means that each flush toilet can be shared between as few as 20 people, or as many as 40 people. As yet, there are no national or international conventions on the number of people per toilet facility. However, the Sphere Project, an international organisation involved in disaster planning and mitigation, recommends one flush toilet per 20 people as the minimum required in emergency situations in order to prevent the spread of disease[xxiv]. They also recommend that separate, demarcated, toilets are provided for male and female use. Therefore, the basic toilets provided by the City are, at best, considered to be emergency facilities.

Approximately 44% of informal residents have no access to basic sanitation, and many residents of informal settlements still use the bucket system. The ideal method of disposal when using the bucket system is burial. However, more often than not toilet buckets are simply dumped into open land, or directly into the stormwater system. This has serious negative downstream impacts on fresh water and coastal ecosystems. Furthermore, those residents without access to basic sanitation are at considerable risk of developing moderate to severe illness as a result of contact with improperly disposed faeces. Illnesses such as diarrhoea, cholera, hepatitis A, typhoid and other enteric fevers, skin infections, and infestation by parasitic worms are possible risk factors in an area with improper or absent sanitation.

The City has established its own realistically achievable goal of 100% access to basic sanitation by 2020. In order to prevent the spread of disease, and promote dignified living environments in informal settlements, it is

essential that the City continues its programme of implementing basic sanitation, and that it does so in a swift and efficient manner.

COMPONENTS OF SUSTAINABILITY

Biophysical - Lack of sanitation impacts negatively on the natural environment as excess nutrients from human waste lead to nutrient overloading of inland water systems.

Social - Lack of access to sanitation means that many are more susceptible to disease and live under undignified conditions.

POLICY LINKAGES

IDP: 2020 Goal - Universal access to basic services.

IMEP: Urbanisation and Housing - A recognition that shelter and services are needed for a growing population.

MDG Goal 7: Target 10 - Halve by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.
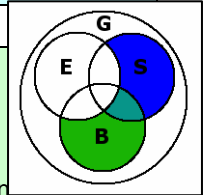
See also:

* Water use per capita

* Access to water

* Fresh water quality

* Coastal water quality

Percentage of informal housing
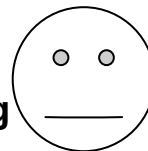
Indicator: The percentage of informal housing in relation to formal housing, as well as the growth in number of informal dwellings.

Number of Informal Dwellings 1993 - 2005

28,300
59,854
72,140
83,684
96,951
94,972
98,031

1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005

City of Cape Town Dept. of Strategic Development Information

Housing is considered a basic human need, as it is essential both for survival and shelter from the elements as well as for social needs such as comfort, security and a sense of ownership and permanence.

Roughly 13% (approx. 400 000 people) of Cape Town's population live in informal dwellings[xxv], defined as unserviced wood and iron structures. These dwellings form part of larger settlements, which may be fully or partially serviced, or completely unserviced by water, electricity or sanitation.

The growth of informal settlements in Cape Town after 1993 has been dramatic. This occurred as a result of the removal of the apartheid era access controls to the city, allowing free movement and migration from other parts of the country. Cape Town (and other big cities) is an attractive place for many poor South Africans, especially from the rural Eastern Cape, who migrate in order to find better job opportunities and an improved quality of life. By 2004 it was clear that the number of informal dwellings was levelling off and 2005 saw little growth from the previous year. This is due partially to the ongoing formalisation of dwellings in low-cost housing programmes, as well as a decrease in the number of migrants arriving in Cape Town.

Informal settlements are faced with a number of problems and life in an informal settlement can be fraught with difficulties. Informal dwellings are often insecure and prone to damage from flooding, wind and fire. Many settlements are also only partially serviced and require upgrading with water, sanitation and electricity where appropriate. As such, it can be hard to maintain a decent quality of life. Overcrowding and disease due to lack of services and substandard housing add to the burden of life in an informal settlement.

Number of low cost dwelling units built

4110
9729
1808
3469
4585

01/02   02/03   03/04   04/05   05/06
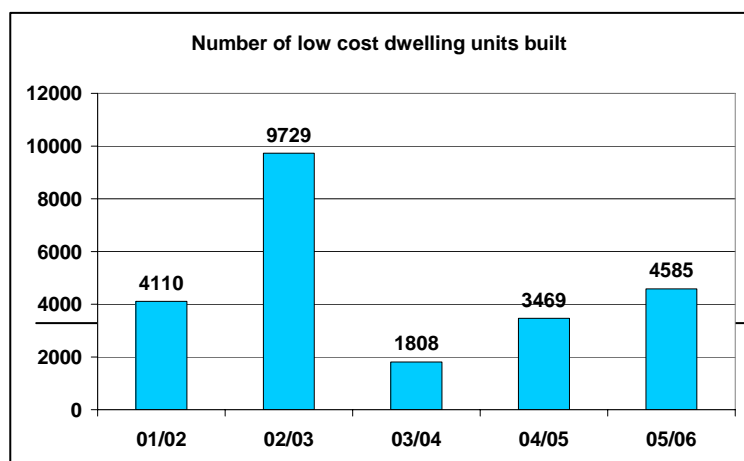
Furthermore, informal settlements tend to be located on the periphery of the city. This means that they are usually far from economic opportunities and that the residents may have to spend a large portion of their day commuting, and a substantial percentage of their household

income on transport costs. Adding to the problem is the fact that many informal areas are not serviced by rail, and therefore transport is limited to the already congested road network.

The City of Cape Town is in the process of addressing the housing backlog which currently stands at approximately 300 000 dwellings. It is clear that the City cannot address this problem alone, and therefore ongoing partnerships with Provincial and National Government are essential. In the 2005/06 financial year the City built 4 585 new houses as part of its ongoing Integrated Human Settlements Programme. Although the number of houses built per year decreased dramatically after 2002, progress is being made in reducing the housing backlog.

COMPONENTS OF SUSTAINABILITY

Social - Living conditions in informal settlements can be extremely hard for residents; the number of people who live in substandard conditions should be reduced.

POLICY LINKAGES

IDP: 2020 Goal - Universal access to basic services.

IMEP: Urbanisation and Housing - A recognition that shelter and services are needed for a growing population.

MDG Goal 7: Target 11 - Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers.
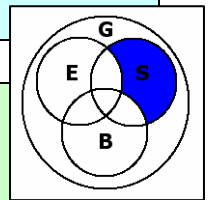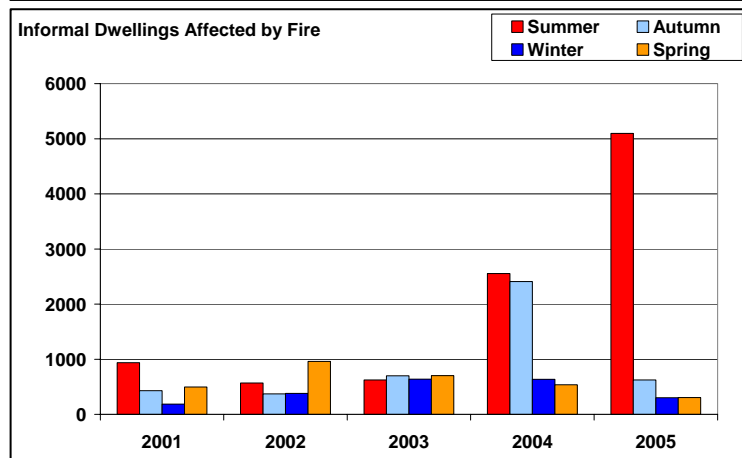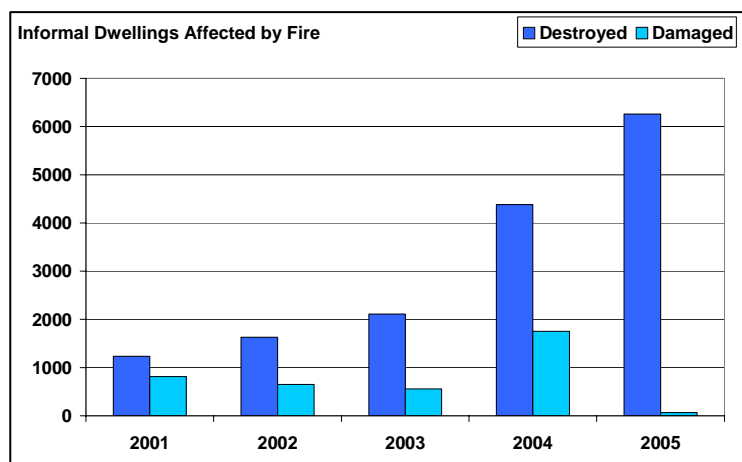
See also:

* **Access to water**

* **Access to sanitation**

* **Incidence of fires in informal settlements**

Incidence of fires in informal settlements

Indicator: The incidence of fires in informal settlements, measured as the number of units damaged or destroyed by fire each year. The term 'informal dwelling' is defined as a 'wood and iron structure', and therefore includes backyard shacks.

SOURCE: University of Cape Town Disaster Mitigation for Sustainable Livelihoods Programme, extracted from the Mandisa System.

Informal Dwellings Affected by Fire   ■ Destroyed ■ Damaged

Informal Dwellings Affected by Fire   ■ Summer ■ Autumn ■ Winter ■ Spring

Informal settlements in Cape Town have grown significantly since 1993, although since 2003 growth has begun to level off. By 2005 approximately 400 000 of Cape Town's over 3.2 million residents were living in informal settlements.

Space in existing serviced informal settlements is extremely limited and therefore these settlements have grown more crowded over time. Many settlements are densely overcrowded, with the space between shacks often being as little as half a metre. As few settlements are serviced with electricity, an expensive commodity, most residents rely on alternative forms of energy for heating, lighting and cooking. The use of paraffin stoves for cooking and heating and candles for lighting is widespread in Cape Town; wood fires are less common.

Unfortunately, the pervasive use of naked flames in the household, in combination with the flammable nature of many of the materials used in shack building, means that fires are common in informal areas. Paraffin stoves are notoriously dangerous. In 2003 the Paraffin Safety Association of South Africa (PASASA) tested the five most commonly used pressure-type stoves and the four most commonly used wick-type stoves and found that all posed a moderate to serious risk of starting a fire[xxvi]. None of these stoves met the required SABS standards for paraffin safety. It was determined that the pressure-type stoves could withstand being knocked over, but were prone to overheating, thereby creating a dangerous risk of explosion. The wick-type stoves were more hazardous and universally burst into flames when knocked over. These stoves were also prone to leakage, therefore creating dangerous pools of liquid fuel within

the home. PASASA has labelled these paraffin appliances as 'firebomb stoves', as they are responsible for most informal settlement fires in Cape Town. PASASA is conducting an ongoing campaign in paraffin-using communities to mitigate some of the risks associated with these stoves, through education on how best to operate the stoves. PASASA is also strongly involved in lobbying parliament to ban these faulty appliances, and is conducting ongoing research and development of cheap, safe paraffin stoves.

The crowded and uncontrolled layout of many settlements means that it is often almost impossible for fire fighters and trucks to reach the affected shacks, and therefore the fire may spread rapidly before fire fighters are able to contain it. Fires are also most common in summer, when hot, dry and windy conditions create runaway infernos. It is not uncommon for more than 50 shacks to be destroyed in one incident, leaving at least 200 people homeless and destitute. In 2005 more than 6 000 shacks were destroyed, over 4 000 of these in one incident in Langa. These fires are devastating for those affected, many of whom lose all their possessions in the flames. Many residents, mostly children, have been severely burned in fires, leading to permanent injury or death.

The human cost of fires in informal settlements is immeasurable, the suffering and loss experienced by those affected is severe. The ongoing use of dangerous paraffin appliances, in combination with the overcrowded nature of informal areas means that this problem is worsening year by year. It is clear from statistics that the number of dwellings affected is growing at a rapid rate, with 2005 being the worst year yet. In order to promote a decent standard of living in informal settlements, the problem of runaway fires must be urgently addressed.
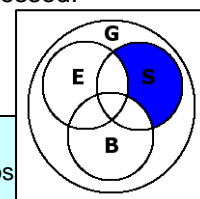
COMPONENTS OF SUSTAINABILITY
Social - The incidence of fires in informal settlements is a significant safety problem which can lead to los possessions, and permanent injury.
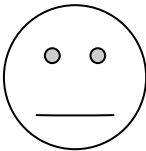
POLICY LINKAGES
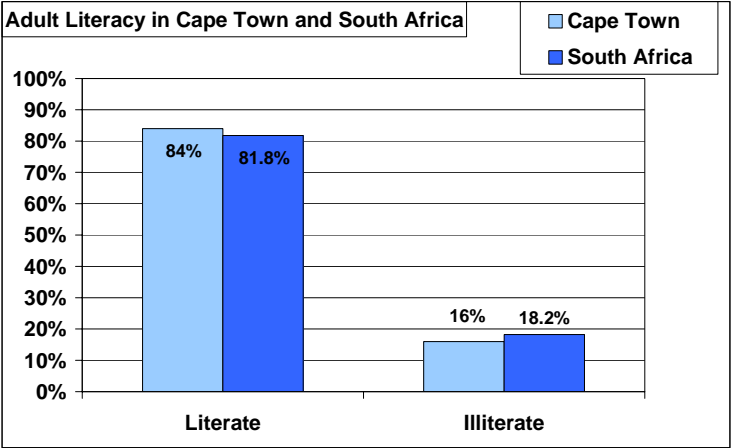**IMEP:** Energy - A commitment to sources of energy with the least impact on the environment and health of communities.

See also:
*** Access to water**
* Percentage of informal housing

Adult literacy

The percentage of people ages 18 years and above who are able to read and write

Adult Literacy in Cape Town and South Africa

Legend: Cape Town, South Africa

	Literate	Illiterate
Cape Town	84%	16%
South Africa	81.8%	18.2%

Adult Literacy in SADC Countries

Country	Literacy
Botswana	69.8%
DRC	77.3%
Lesotho	71.3%
Malawi	56.4%
Malawi	56.4%
Mauritius	82.9%
Mozambique	40.1%
South Africa	81.8%
Swaziland	76.7%
Tanzania	67.8%
Zambia	78.2%
Zimbabwe	85.1%

Source: International Literacy Explorer - www.literacyonline.org

The UN declared literacy a basic human right over 50 years ago as part of the Universal Declaration of Human Rights, and has designated the decade of 2003 to 2012 as the decade of 'Literacy as Freedom'[xxvii].

The association of literacy with freedom is a crucial one. Literacy is a necessary prerequisite for education, as well as for skilled employment. Illiteracy, therefore, is strongly linked with unemployment, poverty and an inability to improve one's quality of life. In order to function as a member of modern society it is necessary to be literate, as it is necessary to be able to read in order to make informed decisions about many key aspects of modern life, including health care, banking, and shopping.
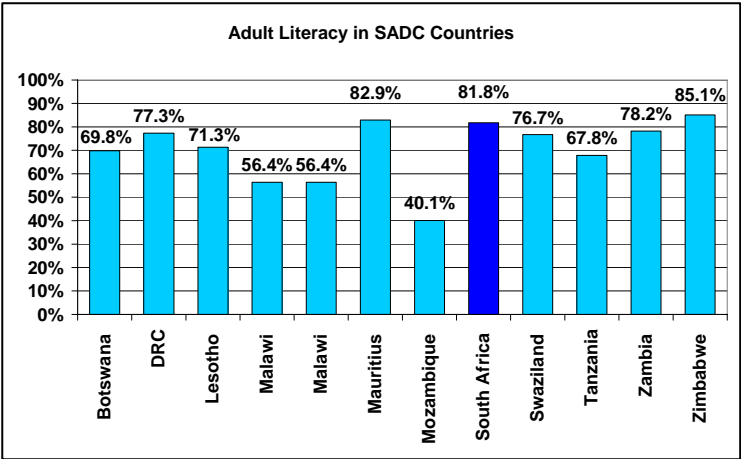
In Cape Town, adult literacy remained at approximately 84% in 2005. This compares favourably with the national adult literacy rate of 81.8%.

Unfortunately, there has been no improvement in literacy since the previous reporting period, and this is not likely to change significantly in the near future. The reason for this is that the illiterate adult population of Cape Town are overwhelmingly between the ages of 40 and 85, and therefore unlikely to pursue further education. As time goes by, and the aged and largely undereducated population dies, the literacy rate can be expected in improve significantly. In an effort to combat illiteracy in the middle-aged and elderly population many libraries around the city offer adult literacy classes.

COMPONENTS OF SUSTAINABILITY

Economic - High levels of adult literacy mean a more skilled workforce, which is able to build a better economy.
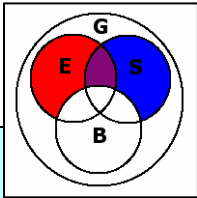
Social - Literacy allows one to function properly in modern society and allows people to get better jobs and therefore improve their quality of life.

POLICY LINKAGES

IDP: 2020 Goal - Less than 5% of the population illiterate.

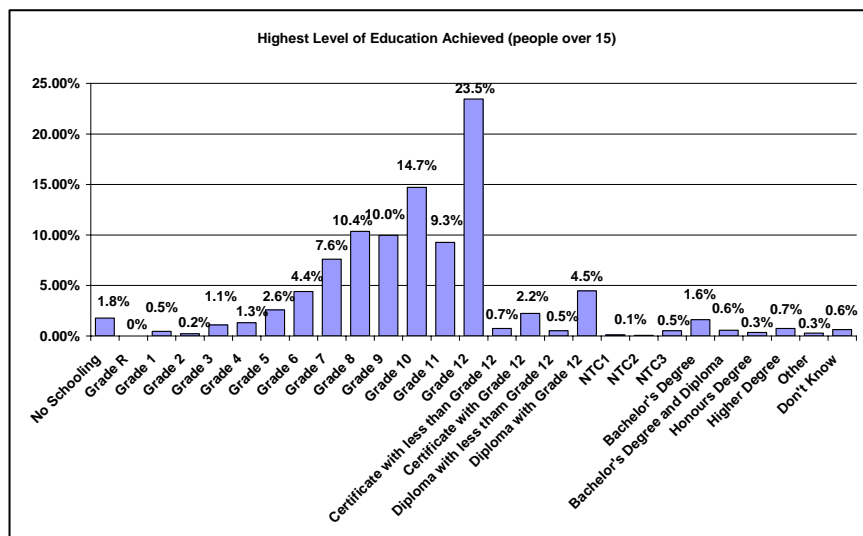**MDG Goal 2:** Achieve universal primary education.

See also:

* Highest level of education achieved

* Unemployment

Highest level of education achieved

Indicator: The highest level of education achieved by residents of Cape Town

Highest Level of Education Achieved (people over 15)

Source: Statistics South Africa - General Household Survey 2005

In 2005 it was determined that almost 45% of people over the age of 18 have completed Matric or a higher qualification, while 58% of those over the age of 15 have completed Grade 10 (Standard 8) or higher. In South Africa, school is compulsory until the age of 15, the age at which most learners will be in Grade 10.

Unfortunately, this also means that the majority of residents over the age of 18 (55%) have not been able to complete their school education, while 42% of residents over the age of 15 have not been able to complete up to Grade 10. Many of those who have not been able to complete the minimum expected level of school were educated during the apartheid era, and as such left school prior to the age of 15 due to inequality, inefficiency, and lack of proper teaching in the school system.

Therefore, over the next 10 to 20 years, one would expect the picture of Cape Town's education levels to change somewhat, in a positive direction. It is less likely today than ten years ago that a learner will leave school before age 15 due to an increased standard of teaching and education, and the restoration of equality and dignity in the school system.

The matric pass rate is another useful indicator of the state of education in Cape Town. As the graph shows, the matric pass rate peaked at around 85% in 2003, while in that year 87% of those learners who wrote exams, passed. This also indicates that a significant number of students drop out of their matric year before they have the opportunity to write exams. In 2004 and 2005, that pass rate dropped by approximately 3%. However, a significant improvement has been noted since 1997, when the pass rate was as low as 74%.

It is important for the future of Cape Town, and South Africa in general, that the matric pass rate remains high and is further improved. This indicator needs to be watched carefully in future in order to determine whether
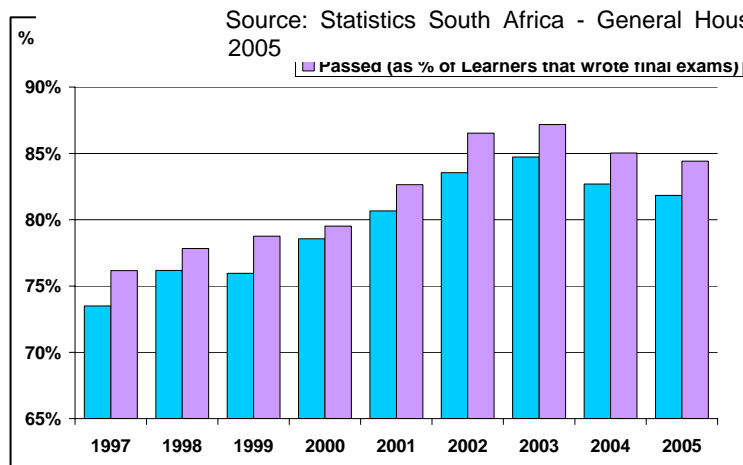
further downward trends will be noted. If this is the case, urgent action needs to be taken to determine what the cause of the lowered pass rate may be, and how best to rectify the situation.

It is problematic that a significant percentage of residents have not been able to finish matric, and have therefore not had the benefit of tertiary education. Most of these people will not be able to find skilled employment, and will therefore be unlikely to be able to improve their income and quality of life. Tertiary education is the key to building the country's economy, as it is at tertiary institutions where the country's future professionals are educated.

Schools and education in Cape Town are primarily the responsibility of the Provincial Government of the Western Cape. Therefore, it is of the utmost importance that the City of Cape Town works in partnership with Provincial and National Government in efforts to improve education in general, and the matric pass rate in particular.
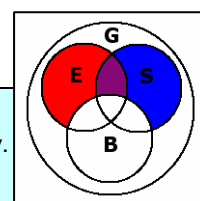
COMPONENTS OF SUSTAINABILITY

Economic - An educated population means a more skilled workforce, which is able to build a better economy.

Social - Higher levels of education allow people to get better jobs and therefore improve their quality of life.

POLICY LINKAGES

IDP: 2020 Goal - Universal access to basic services.

IMEP: Urbanisation and housing - A recognition that shelter and services are needed for a growing population.

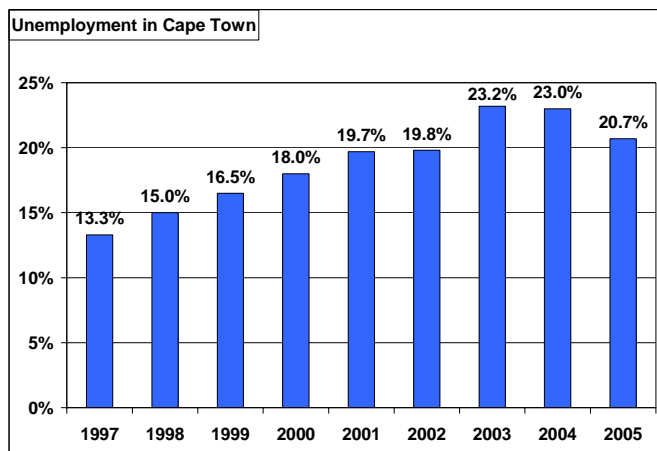**MDG Goal 2:** Achieve universal primary education.

See also:

* Adult literacy

* Unemployment
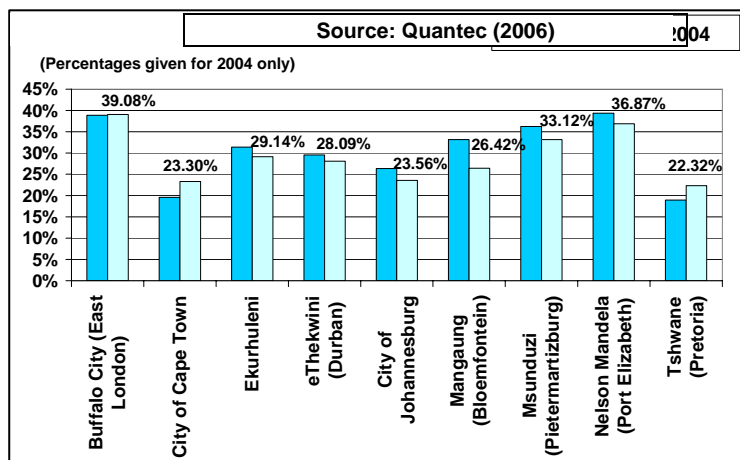
* Poverty and income disparity

Unemployment

Indicator: The percentage of the economically active population that is unemployed.

Unemployment in Cape Town

Year	Percentage
1997	13.3%
1998	15.0%
1999	16.5%
2000	18.0%
2001	19.7%
2002	19.8%
2003	23.2%
2004	23.0%
2005	20.7%

Source: Quantec (2006)

2004

(Percentages given for 2004 only)

City	Percentage
Buffalo City (East London)	39.08%
City of Cape Town	23.30%
Ekurhuleni	29.14%
eThekwini (Durban)	28.09%
City of Johannesburg	23.56%
Mangaung (Bloemfontein)	26.42%
Msunduzi (Pietermaritzburg)	33.12%
Nelson Mandela (Port Elizabeth)	36.87%
Tshwane (Pretoria)	22.32%

Source: South African Cities Network (2006) State of Cities Report

An unemployed person is defined by Statistics South Africa as those people within the economically active population (i.e. people over the age of 15, and below retirement age) who do not have work, want to work and are available to start work within two weeks.

In the previous Sustainability Report it was reported that unemployment in Cape Town had doubled between 1997 and 2004. This was an important indicator of the pressing social and economic challenges facing the city.

It is therefore very encouraging to note a drop of 2.3% in unemployment in 2005. This is the first significant drop in this indicator since monitoring began in 1994.

According to the 2006 State of Cities Report, Cape Town has the second lowest level of unemployment among the nine metropolitan areas of South Africa, with Buffalo City having the highest, at almost 40%. It has long been noted there appears to be little correlation between overall economic growth in a city, and employment levels. This is true of Cape Town, as although the GGP has grown significantly since 1993, levels of unemployment continued to rise over this time period, indicating that economic growth alone is not sufficient to grow jobs in the city.

It is therefore difficult to ascertain the reason for the drop in unemployment in 2004 and 2005 and too soon to determine whether or not this decrease will be maintained. Possible explanations for the increase in employment in the city include the wide-spread and increasing use of the Expanded Public Works Programme (EPWP) introduced in 2003 as a means of simultaneous employment and skills training. It has equipped many previously unemployed people with essential skills and work experience.

Continued economic growth in Cape Town, coupled with improved adult education and training programmes and on the job training initiatives (e.g. EPWP) are therefore key parts of an integrated strategy for job creation.

COMPONENTS OF SUSTAINABILITY

Economic - A high level of unemployment means that a large percentage of the workforce is not utilised; creating sustainable jobs brings more money into the economy.

Social - Unemployment means that people often cannot meet their basic needs and therefore cannot achieve an acceptable quality of life.
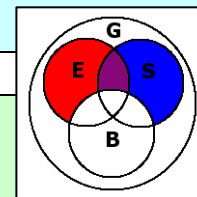
POLICY LINKAGES

IDP: 2020 Goal - Unemployment less than 8%.

IMEP: Economy - A commitment to the creation of jobs and the reduction of poverty.

MDG Goal 1: Target 1 - Halve between 1990 and 2015, the proportion of people whose income is less than $1 a day.

See also:

* **Adult literacy**

* **Highest level of education achieved**

* **Poverty and income disparity**

* **Gross geographic product**

Gross geographic product (GGP)

Indicator: The total value of goods and services by sector per year. The indicator reflects the gross geographic product for the period 1993 to 2005, based on 2000 prices.

In 2005 the GGP (the total value of goods and services produced in the Cape Town city area) of Cape Town was approximately R112.5 billion. This was an increase of almost five and a half billion rand, or 4.9% from 2004's R107 billion.

Since 1993 Cape Town's GGP has experienced an average growth rate of 3.9% per year, although some years have experienced significantly more or less growth. While encouraging, it is worth noting that this growth rate is still below the national target of 4.5% annual economic growth for 2005 - 2009.

The GGP per capita is approximately R35 000 in 2005. However, use of GGP or GDP per capita figures to determine average income and wealth have long been criticised for being inaccurate, disguising the real disparities in wealth. Firstly, the population number used to calculate GGP includes a significant number of people who are not economically active, either due to age (e.g. school learners), or lifestyle choice (e.g. homemakers), therefore it is not an accurate indicator of income. Furthermore, as an indicator of wealth it masks the reality that many individuals subsist on far less than R35 000 per year, while others live on significantly more. Finally, it fails to take into account the fact that a significant proportion of this wealth circulates within companies, the benefits of which are not felt by the general population.

Although the use of GGP for the above mentioned purposes would not be meaningful, the overall picture is a positive one. The value of the economy of Cape Town continues to grow at a steady rate, with 2005 experiencing the largest growth in the past 11 years. Good economic growth is associated with increasing job opportunities and increases in the quality of life in the region. If current growth trends continue Cape Town may expect to reach the national growth rate target in the near future.
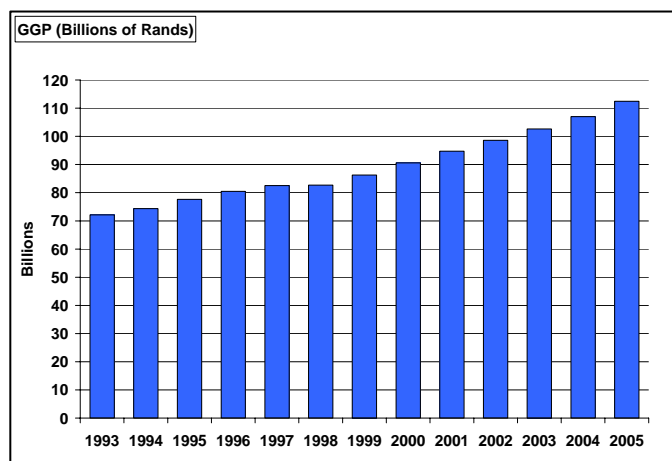
**VIISource: Quantec (2006)**

Source: Quantec (2006)
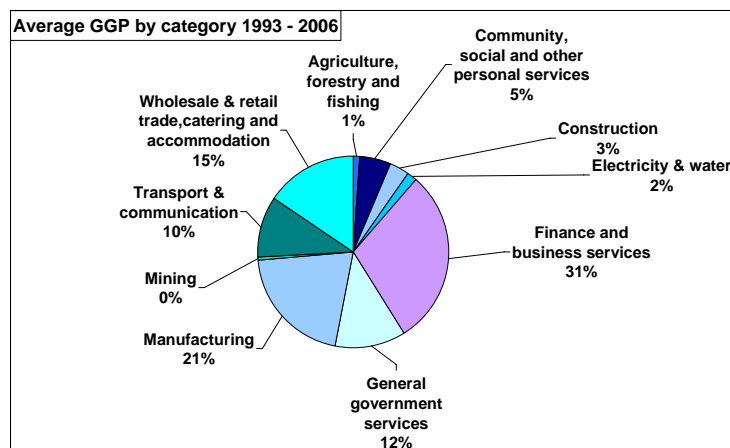
COMPONENTS OF SUSTAINABILITY

Economic - A real growth in GGP means that there is more money circulating in the economy, creating better opportunities for business and employment.

POLICY LINKAGES

IDP: 2020 Goal - Average real per capita income doubled, while reducing inequality.

IMEP: Economy - A commitment to the creation of jobs and the reduction of poverty.
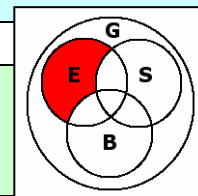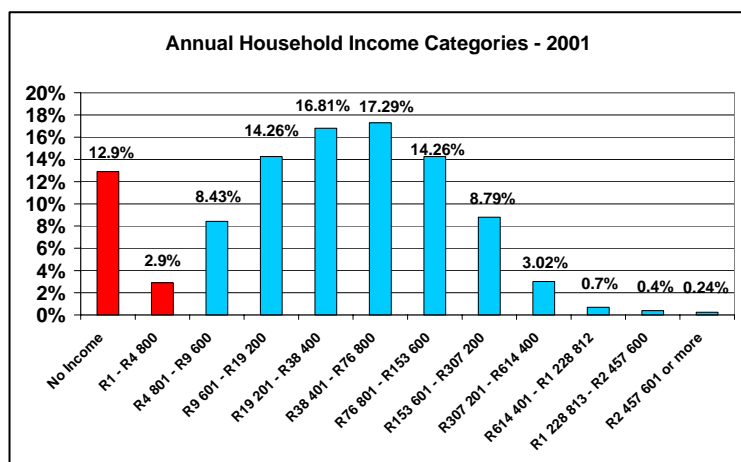
Poverty and income disparity

Indicator: The percentage of people earning below R2,50 a day (PPP equivalent of $1).

Cape Town is a city of contrasts, and nowhere is this more evident than in the disparity between the richest and poorest members of society. Poverty is a difficult concept to quantify, and as such two different measures of poverty are used in this indicator. Defining a poverty line is a difficult and often contentious exercise, as the cut-off point can be seen as arbitrary. Those earning just above and just below the poverty line may well experience the same standard of living, yet one group is defined as 'poor', while the other is not. This problem is not easily solved. However, the purpose of a poverty line is not necessarily to divide and count the number of people in each category. Rather, the value lies in its ability to show trends from year to year. If the number of people living below the poverty line is increasing from year to year then it is clear that a problem exists, regardless of exactly where the line is drawn.

Annual Household Income Categories - 2001

Source: Statistics South Africa - Census 2001

The first poverty line used is the percentage of people earning below $1 (R2,50) a day, or the percentage of households earning less than

R3 650 a year. This has been identified as a key indicator by the UNDP, who defines this as 'extreme poverty'. Millennium Development Goal One is to eradicate extreme poverty by 2015. It is important to note that a Purchasing Power

Parity exchange rate has been used here, according to international best practice, and not the official exchange rate. This indicator is difficult to measure, as income data in South Africa is measured in

categories which do not necessarily correspond to international or national poverty lines, and therefore the nearest category available is that of households earning less than R4 800 a year. **According to this definition approximately 16% of households in Cape Town are living in extreme poverty.**

The second is the percentage of people living below the Household Subsistence Level (HSL) of R2 250 per month, for a family of four. The HSL is defined as the minimum theoretical amount required by a household to maintain a minimum level of health and decency in the short term[xxviii], and is the most widely used measure of poverty in South

Percentage of Households Living Below HSL
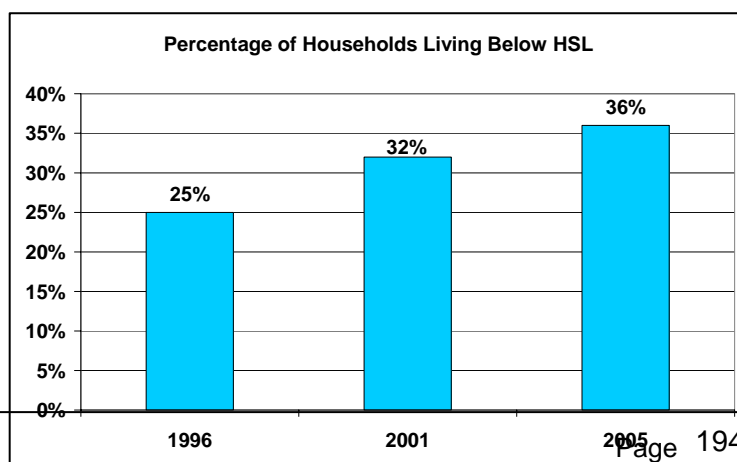
Source: City of Cape Town - State of Cape Town Report 2006

Africa. This consists of the total costs incurred on food, transport, fuel, utilities, cleaning and washing equipment and rent. **In 2005 approximately 38% of households were living below the HSL and therefore unable to maintain a decent standard of living[xxix].**
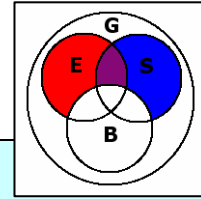
COMPONENTS OF SUSTAINABILITY

Economic - A large number of people living in poverty means that many are economically inactive. This impacts on the wider economy of an area.

Social - It is extremely difficult for people to live a dignified lifestyle when they are often unable to meet their basic needs.

POLICY LINKAGES

MDG Goal 1: Eradicate extreme poverty.

IDP: 2020 Goal - Average real per capita income doubled, while reducing inequality.

IMEP: Economy - A commitment to the creation of jobs and the reduction of poverty.

See also:

* Unemployment

Public education, training and awareness programmes

Indicator: The total number of participant person days for public education and awareness programmes in which the City in involved each year.

Currently, four line functions within the City of Cape Town provide significant, dedicated education, awareness and training programmes to the public. These are the Departments of City Health, Economic and Human Development, Environmental Resource Management and Catchment and Stormwater Management.
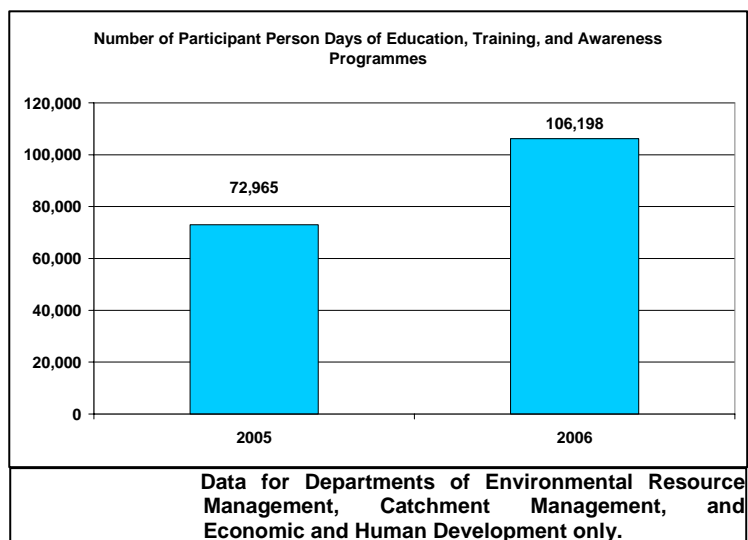
It is clear that there has been significant growth since 2002, as the City has come to understand that public education programmes are a key part of good governance and achieving sustainability. The City cannot achieve sustainability alone - it requires the participation of a variety of non-governmental stakeholders, including the general public. Education, training and awareness programmes that are targeted at improving social, environmental and economic sustainability among the general public are key factors in improving sustainability in the city, as well as improving the quality of life of those targeted by the programmes.

Education and awareness programmes are largely aimed at improving knowledge and consciousness about a variety of issues, primarily environmental education. In 2006 the Youth Environmental Schools (YES) programme saw a record number of 30 352 primary school learners from a variety of social and economic backgrounds participating in three days of dynamic and hands-on environmental education. The Catchment Management Department, in partnership with the Two Oceans Aquarium, has run a highly successful puppet show on water-related issues since 2003, which reaches over 50 000 learners a year.

Training programmes are somewhat different, and provide a more intensive approach to public education. This involves focused workshops and programmes aimed at building skills and capacity, primarily to provide participants with better economic opportunities. The Economic and Human Development Department runs a Job Centre, which provides training and networking opportunities to those seeking employment, as well as a Voucher Programme for small business owners and entrepreneurs in order to provide them with improved skills and the ability to run their business in a sustainable manner. They also run a Schools Entrepreneurship Programme which equips high schools learners with key small business training.

The Department of City Health does not carry out these programmes itself, but employs a number of NGOs to do so. Programmes primarily focus on HIV/AIDS prevention and treatment, the importance of good nutrition and the implementation of good hygiene practices. In 2006 they employed 17 NGOs for this purpose. Statistics on the number of participant person days for City Health programmes were not available at the time of finalising this report.

This indicator was recalculated since the previous report, and contains data from a number of additional departments, which was not previously available. Therefore, comparisons cannot be made with previous data.

Number of Participant Person Days of Education, Training, and Awareness Programmes

Data for Departments of Environmental Resource Management, Catchment Management, and Economic and Human Development only.

It is clear from the graph that a large number of participant person days (defined as the number of people involved in a programme, multiplied by the number of days they participated) of education, awareness and training programmes are carried out each year. In 2006 over 100 000 participant person days of education programmes were carried out by the departments of Environmental Resource Management, Catchment Management, and Economic and Human Development. This indicates a significant increase since 2005. These programmes provide an important service to the people of Cape Town, and are a key method of improving the quality of life for many residents of the city.

COMPONENTS OF SUSTAINABILITY

Biophysical - Education on environmental issues contributes to conservation in the city.
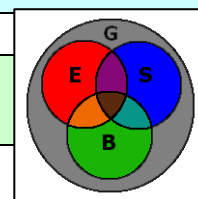
Economic - Education and training programmes build capacity and teach people a wide range of skills that are useful in furthering their economic opportunities.

Governance - The implementation of education and awareness programmes is a key aspect of good governance.

Social - Education and training programmes promote social development, especially among disadvantaged youth.
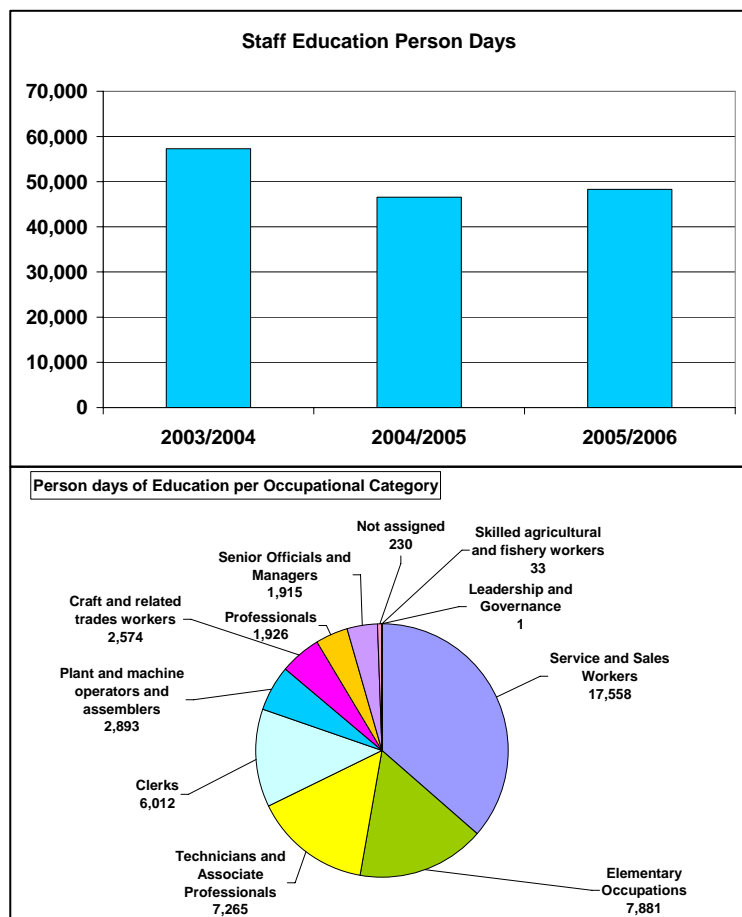
POLICY LINKAGES

IMEP: Environmental Education - A commitment to promoting environmental education and awareness.

Staff education, training and awareness programmes

Staff Education Person Days

Person days of Education per Occupational Category

Many people think that education ends when one leaves school or tertiary education. However, lifelong education and training is an important tool to promote personal growth, increase organisational efficiency and ensure that employees remain up to date with changes in technology. The ongoing education of City of Cape Town staff is of great benefit to both individual employees, and the City as an organisation.

In 2005 the 22 275 staff of the City of Cape Town participated in education, training and awareness programmes, totalling 48 288 person days, or approximately two days per person.

Staff training education and awareness programmes can take many forms.
A number of programmes are designed to increase staff capacity and efficiency through training in the use of new equipment. This includes machinery used by the City's service functions, equipment used by the City's Scientific Services Department, and computers used by most office-based staff. Health education programmes, especially those dealing with HIV/AIDS are also a key component of staff awareness. Senior management and professionals have also benefited from workshops on management and leadership, conflict resolution, legal responsibilities and good working practices.

By far the most person days were allocated to the training and education of service and sales workers and those in elementary occupations. This is to be expected, as these employees constitute the majority of the City workforce. A significant number of person days were also dedicated to technicians and machine operators, as this kind of work requires ongoing training due to the rapid pace of technological change.

Although a drop was noted in the number of person days from 2003/2004 to 2004/2005 this can be accounted for by a number of reasons. Firstly, the City's staff complement decreased over the period 2003 - 2006.

Secondly, it is not always necessary to conduct the same number of training and education workshops from year to year, as topics differ and many staff do not require yearly training.

What is important to note is that a significant number of person days of education, training and awareness programmes have been carried out over the past three years. This has had a positive impact both on the efficiency of the organisation, as well as the personal growth and development of staff members.

COMPONENTS OF SUSTAINABILITY

Biophysical - Education on environmental issues contributes to conservation in the city.

Economic - Education and training programmes build capacity and teach people a wide range of skills that are useful in furthering their economic opportunities.

Governance - Building skills of local government staff allows the City to operate better and more efficiently.

Social - Education and training programmes raise awareness of social issues in the workplace and wider society, and provide important tools for resolving conflicts.
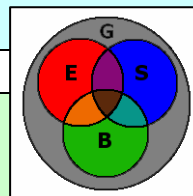
POLICY LINKAGES

IMEP: Environmental Education - A commitment to promoting environmental education and awareness.

IMEP: Environmental Governance - A commitment to effective environmental governance in Cape Town.

Local Agenda 21 projects

Indicator: The number of Local Agenda 21 (LA21) projects undertaken by the City of Cape Town, specifically supporting joint initiatives with civil society and business

Local Agenda 21 Projects
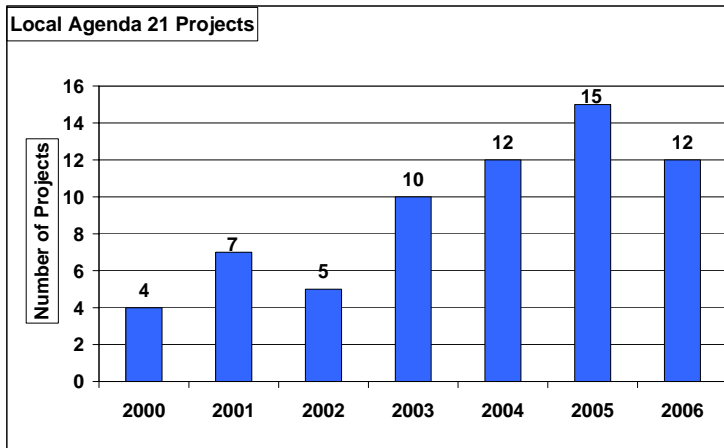
Agenda 21 was developed at the 1992 United Nations Conference on Environment and Development (UNCED), more commonly known as the Earth Summit. Agenda 21 is a comprehensive action plan setting out methods for reducing human impact on the environment and improving quality of life. Local Agenda 21 (LA21) refers to the implementation of this action plan at a local level, and is seen as a means through which cities can promote sustainable development. The key principle behind LA21 is 'think global, act local'.

The following principles are fundamental to LA21[xxx]:

- integration of social, economic and ecological issues
- a multi-sectoral approach to problem-solving involving all sectors of the community
- taking a long-term view of society and its problems
- working within ecological limits to produce sustainable societies
- local government and civil society partnerships
- linking local issues to global problems and impacts
- promoting equity, justice and accountability

A Local Agenda 21 partnership was established in 2000 between Cape Town and the City of Aachen, in Germany. The objectives of this partnership include the implementation of projects both in Aachen and Cape Town, awareness raising and learning through exchanges. The partnership began in 2000 with only four projects and has continued to grow considerably over the years.

2005 was a particularly eventful year for Local Agenda 21 in Cape Town, with the City actively involved in 15 projects and events. 2006 saw a slight drop to 12 projects, but in general the trend since 2000 has been an overwhelmingly positive one. The following are just some of the projects undertaken under the auspices of LA21 in 2006.

Bicycle Recycle Project

This project began in 2001 when disused bicycles were collected in Aachen and sent to Cape Town in order to be refurbished. These bicycles are then sold to underprivileged community members for a nominal fee. The Bicycling Empowerment Network coordinates this project, and provides road safety and bicycle maintenance workshops to the recipients. In 2006 Cape Town won the Shimano ICLEI Cities Enjoy Bicycles Award for the Bicycle Recycle Project.

Mural Global Project

The aim of this project is the promotion of sustainable development and ongoing international partnerships through art. The theme of all the murals painted as part of this project is related to sustainability and raising awareness about environmental and social issues.

Bauwagen **(Greening Wagon) Project**

The *Bauwagen i*s a mobile wagon that visits underprivileged schools and community organisations and provides materials and support for greening initiatives. This includes the planting of decorative gardens for recreational and aesthetic enjoyment, as well as the establishment of food gardens.

Luhlaza - Inda School Partnership

This ongoing school partnership promotes environmental, science and art education, and cultural exchange across a variety of backgrounds. In March of 2006 a group of five learners from Luhlaza Secondary School in Khayelitsha were given the opportunity to visit their partner school - Inda-Gymnasium - in Aachen, for three weeks. In October 2006 a group of learners from Germany completed the exchange when they made a similar visit to Luhlaza.

LA21 Community Festival

This festival was held for the second time in 2006. The aim of the festival is to engage local communities in fun activities, while promoting community self-organisation and social cohesiveness. The inclusion of traditional and cultural activities at the festival contributes to a sense of identity and pride in the communities involved. It also serves to promote and showcase worthwhile and successful projects, and gain increased community involvement in these initiatives. In 2006 the festival involved communities from Atlantis, Elsie's River, Khayelitsha and Manenberg, and included a concert, workshops, open days at two environmental centres, and a soccer tournament.

Local Agenda 21 is a holistic method of working towards sustainability, while engaging and empowering local communities. As such, the principles of LA 21 provide important tools for a variety of line functions in the City, and need to be adopted and implemented, where appropriate.

COMPONENTS OF SUSTAINABILITY

Social - Growth of civil society and government partnership is important for social development in the city.
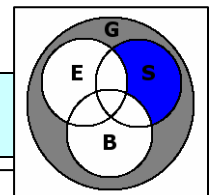
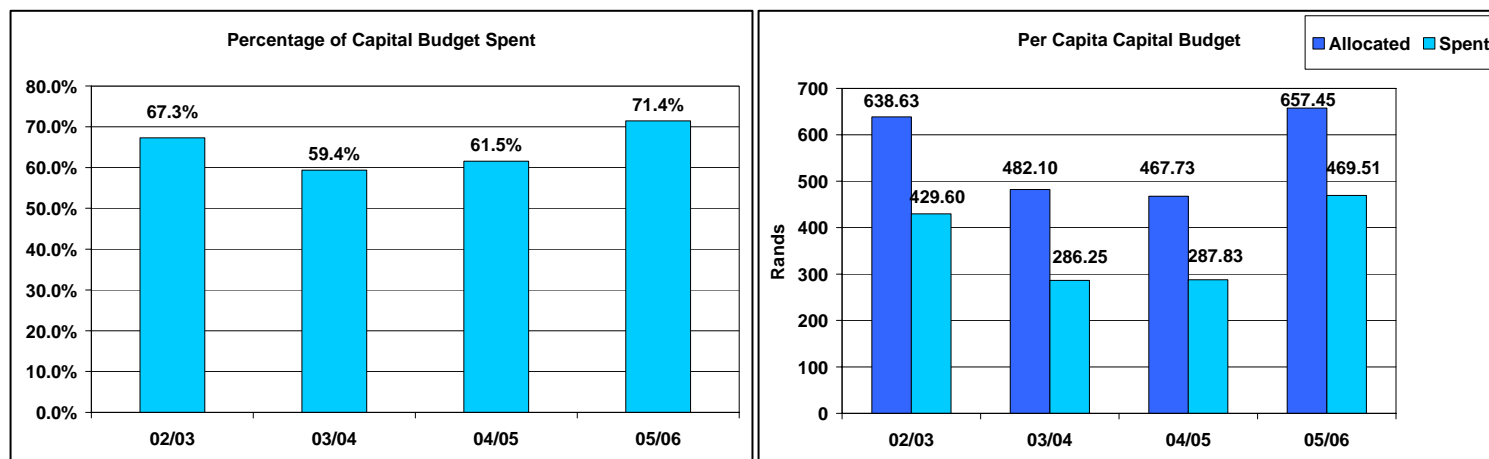**Governance** - Engaging with communities is a key aspect of good governance.

POLICY LINKAGES

IMEP: Environmental Governance - A commitment to effective environmental governance in Cape Town.

Capital budget spent

Indicator: The proportion of the capital budget allocated to the City of Cape Town in relation to the amount of the budget spent within a financial year.

Percentage of Capital Budget Spent

Year	Percentage
02/03	67.3%
03/04	59.4%
04/05	61.5%
05/06	71.4%

Per Capita Capital Budget (Rands)

Year	Allocated	Spent
02/03	638.63	429.60
03/04	482.10	286.25
04/05	467.73	287.83
05/06	657.45	469.51

The capital budget is that portion of the annual City budget which is allocated to projects which require substantial capital outlay. These are typically infrastructure-type projects, and therefore have a vital role to play in improving the living conditions and quality of life of all residents of Cape Town. Capital budget projects include the building of housing, municipal health clinics, roads, electricity infrastructure, sewerage and associated wastewater treatment works, as well as the provision of recreational spaces such as parks and nature reserves.

In the previous Sustainability Report it was reported that in the 2003/2004 and 2004/2005 financial years, significant underspending of the capital budget had taken place. 2003/2004 saw the lowest percentage spending (59.4%) take place, while 2004/2005 saw the lowest per capita budget allocation (R467,73) since the formation of the Unicity in 2001.

It is therefore worth noting that in the 2005/2006 capital budget spending increased dramatically, with R657,45 being allocated per person, of which 71.4% was spent during the financial year. Although this is still a sizeable underspend, it is also a dramatic improvement of almost 10% since the previous financial year. It is also important to note that in 2005/2006 the highest amount per capita was allocated and spent since the formation of the Unicity.

In order to promote economic and social development in the city, as well as ensure an improved quality of life for all citizens, proper capital budget spending is necessary.

COMPONENTS OF SUSTAINABILITY

Economic and Social - In order for economic and social development to take place in a sustainable manner, government must make the most of its capital budget.
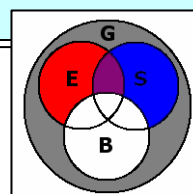
Governance - Proper spending of the capital budget is a key aspect of good governance.

POLICY LINKAGES

IDP: 2020 Goal - A top corporate governance city.

Election turnout

Indicator: The percentage of registered voters turning out on voting day for municipal elections.

In March 2006 Cape Town held its municipal elections. This was a hotly contested election surrounded by much media coverage and publicity. Therefore it is unexpected to see that the turnout for this election was just under 50%, a decrease of almost 7% since the previous municipal elections in 2000.

Voter Turnout - Municipal Elections
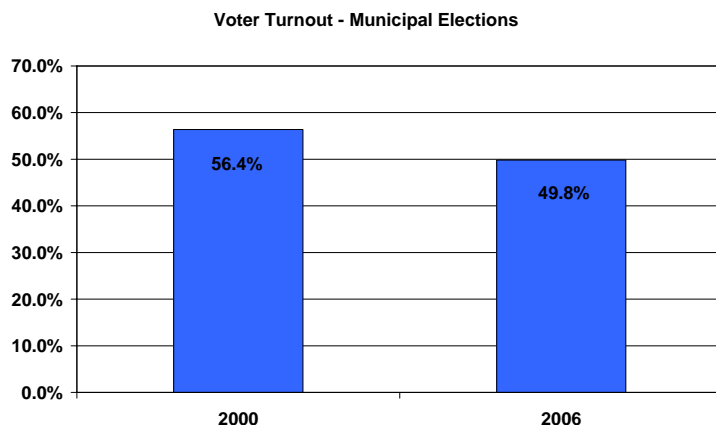
Typically, voter turnout in municipal elections is significantly lower than that in national elections, and in most mature democracies is relatively low. However, due to the controversial nature of the 2006 municipal election one would have expected an increase, rather than a decrease in voter turnout. The two most likely explanations for decreased voter turnout are satisfaction with the present government, and voter apathy. Due to the tense political situation in Cape Town it is unlikely that satisfaction is the correct reason for this lowered turnout.

The Institute for Democracy in South Africa (IDASA) suggests that floor-crossing may be a powerful contributor to voter apathy. IDASA has undertaken research which provides compelling evidence that floor- crossing directly contributes to a feeling of disillusionment with the democratic process amongst voters, who may begin to feel as if their vote doesn't matter. Cape Town and the Western Cape have seen significant floor-crossing activity in recent years. This activity is usually accompanied by significant publicity, and many high-profile and often negative media reports.

Voter turnout is especially poor among young people, many of whom are simply not interested in the process and are often ignorant of the choices available to them. It is also clear from statistics made available by the IEC that voter turnout in poorer areas of Cape Town is especially low. This may be due to a sense by residents that voting makes no difference to them, as their living conditions and quality of life remain poor after 10 years of democracy. In order to best reflect the feelings of Cape Town's population and lend greater legitimacy to elections, increased voter turnout should be encouraged.
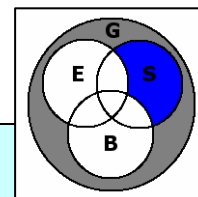
COMPONENTS OF SUSTAINABILITY

Social - Low election turnout is indicative of voter apathy and disillusionment with the democratic process.

Governance - Local government is able to operate in a more stable manner if it has popular support.

1 Appendix A

Goals of the Cape Town Integrated Metropolitan Environmental Policy (IMEP)

See website: www.capetown.gov.za/IMEP

Goal	Description
1. Air	A commitment to reducing the incidence of all forms of air pollution and the potential environmental health risks associated with air pollution.
2. Water resources	A commitment to ensuring that the quality of coastal, marine and inland waters of Cape Town is suitable for the maintenance of biodiversity, the protection of human health and a commitment to the principle that all Cape Town inhabitants have the right to clean, potable and adequate water sources.
3. Landforms & soils	A commitment that recognises that the conservation and enhancement of landforms and soils in Cape Town is essential.
4. Fauna & flora	A commitment to the conservation of biodiversity in Cape Town.
5. Cultural heritage	A commitment to ensuring that the diverse cultural heritage of this city of Cape Town is preserved protected and enhanced.
6. Urbanisation & housing	A commitment to recognising that shelter and services are needed for a growing population, while at the same time recognising that environmental features and systems need protection.
7. Infrastructure	The recognition that the supply and delivery of infrastructure can both improve our living conditions and cause environmental impacts.
8. Transportation	A commitment to the recognition that transportation is needed for access to facilities and work opportunities, but consumes valuable resources and contributes to environmental degradation.
9. Energy	Recognising the importance of energy and its role in development and the negative effects that energy production may have on the environment, a commitment to sources of energy with the least impact on the environment and health of communities.
10. Waste	A commitment to the need for an integrated waste management strategy that addresses both the production and disposal of solid and liquid wastes, as well as the safe collection, transport and disposal and the reduction of illegal dumping.
11. Economy	A commitment to the recognition that the environment of Cape Town is its greatest asset and that sustainable development requires economic growth, the creation of jobs and the reduction of currently high levels of poverty in Cape Town.
12. Environmental health	A commitment to the Constitution of South Africa which guarantees the right of all South Africans to an environment which is not detrimental to their health and well-being.
13. Environmental education	A commitment to supporting and promoting appropriate environmental education and awareness throughout Cape Town and within local government structures.
14. Safety & security	In recognising that many communities in Cape Town experience an unacceptable incidence of crime, a commitment to supporting crime prevention and the reduction of crime is needed.
15. Environmental governance	Recognising that effective environmental governance in Cape Town is in the process of being established and a commitment to this establishment.

.1

1   Appendix B

Goals of the City of Cape Town Integrated Development Plan (IDP) 2005/2006

Our vision

Our vision is to establish Cape Town as:

- A sustainable city that offers a future to our children and their children;
- A dignified city that is tolerant, non-racist and non-sexist;
- An accessible city that extends the benefits of urban society to all and builds the capacity of its people;
- A credible city that is well governed and trusted by its people;
- A competent city with skills, capabilities and a competitive edge;
- A safe and caring city that cares for its citizens and values the safety and security of all who live, work and play in it;
- A prosperous city known for its ability to compete globally in the 21st century and its commitment to tackling the challenges facing South Africa, the Southern African Development Community and the African continent; and
- A city known for its leadership in Africa and the developing world.

Our IDP 2020 goals

To give substance to our vision and to link our vision to our strategies the City of Cape Town has embraced a bold set of goals to be achieved by the year 2020:

1. 100% improvement in key human development indicators;
2. Less than 5% of population in informal settlements;
3. Universal access to basic services;
4. Levels of violent crime reduced by 90%;
5. Water use and waste production down 30%;
6. Access to safe green space within walking distance for all;
7. Renewable energy share equal to 10% of energy consumed;
8. Average real per capita doubled while reducing inequality;
9. Unemployment less than 8%; and
10. Less than 5% of the population illiterate.

Strategic framework

In support of Council's vision and goals for 2020, five strategic themes are proposed focused on socio-economic development and improved service delivery:

- Integrated human settlement;
- Economic growth and job creation;
- Access and mobility;
- Building strong communities; and
- Equitable and effective service delivery.

Running through each of these strategic themes and in support of the first aspect of the City's vision, namely that of a Sustainable City, is the directive to ensure that sustainability runs through the City's broad development programme.

See website: www.capetown.gov.za/IDP

1   Appendix C

Goals and Targets of the United Nations Millennium Declaration

Goal #	Goal and Targets
.2..1.1.1	**Eradicate extreme poverty and hunger**
	Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day
	Halve, between 1990 and 2015, the proportion of people who suffer from hunger
.2..1.1.2	**Achieve universal primary education**
	Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling
Goal 3	**Promote gender equality and empower women**
	Eliminate gender disparity in primary and secondary education preferably by 2005 and in all levels of education no later than 2015
Goal 4	**Reduce child mortality**
	Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate
Goal 5	**Improve maternal health**
	Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio
Goal 6	**Combat HIV/AIDS, malaria and other diseases**
	Have halted by 2015 and begun to reduce the spread of HIV/AIDS
	Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases
Goal 7	**Ensure environmental sustainability**
	Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources
	Halve, by 2015, the proportion of people with sustainable access to safe drinking water
	Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers
Goal 8	**Develop a global partnership for development**
	Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction – both nationally and internationally)
	Address the special needs of the least developed countries (includes tariff- and quota-free access for exports, enhanced program of debt relief for and cancellation of official bilateral debt, and more generous ODA for countries committed to poverty reduction
	Address the special needs of landlocked countries and small island developing states (through the Program of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions)
	Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term
	In co-operation with developing countries, develop and implement strategies for decent and productive work for youth
	In co-operation with pharmaceutical companies, provide access to affordable essential drugs in developing countries
	In co-operation with the private sector, make available the benefits of new technologies, especially information and communications technologies

See website: www.mdg.un.org

Appendix D

Green Cities Declaration

United Nations Environment Programme
Signed by World Mayors on World Environment Day, June 5th 2005, in San Francisco

Vision and implementation

THE 21 ACTIONS that comprise the Urban Environmental Accords are organised by urban environmental themes. They are proven first steps toward environmental sustainability. However, to achieve long-term sustainability, cities will have to progressively improve performance in all thematic areas.

Implementing the Urban Environmental Accords will require an open, transparent and participatory dialogue between government, community groups, businesses, academic institutions and other key partners. Accords implementation will benefit where decisions are made on the basis of a careful assessment of available alternatives using the best available science.

The call to action set forth in the Accords will most often result in cost savings as a result of diminished resource consumption and improvements in the health and general well-being of city residents. Implementation of the Accords can leverage each city's purchasing power to promote and even require responsible environmental, labor and human rights practices from vendors.

Between now and the World Environment Day 2012, cities shall work to implement as many of the 21 Actions as possible. The ability of cities to enact local environmental laws and policies differs greatly. However, the success of the Accords will ultimately be judged on the basis of actions taken. Therefore, the Accords can be implemented though programmes and activities even where cities lack the requisite legislative authority to adopt laws.

The goal is for cities to pick three actions to adopt each year. In order to recognise the progress of cities to implement the Accords, a City Green Star Programme shall be created. At the end of the seven years a city that has implemented:

19 to 21 actions shall be recognised as a ☆☆☆☆ City
15 to 18 actions shall be recognised as a ☆☆☆ City
12 to 17 actions shall be recognised as a ☆☆ City
8 to 11 actions shall be recognised as a ☆ City

Green Cities Declaration
Urban Environmental Accords

Energy

Action 1: Adopt and implement a policy to increase the use of renewable energy to meet 10% of the city's peak electric load within seven years.

Action 2: Adopt and implement a policy to reduce the city's peak electricity load by 10% within seven years through energy efficiency, shifting the timing of energy demands and conservation measures.

Action 3: Adopt a citywide greenhouse gas reduction plan that reduces the city's emissions by 25% by 2030, and which includes a system for accounting and auditing greenhouse gas emissions.

Waste Reduction

Action 4: Establish a policy to achieve zero waste to landfills and incinerators by 2040.

Action 5: Adopt a citywide law that reduces the use of a disposable, toxic or non-renewable product category by at least 50% in seven years.

Action 6: Implement 'user-friendly' recycling and composting programmes, with the goal of reducing by 20% per capita solid waste disposal to landfill and incineration in seven years.

Urban Design

Action 7: Adopt a policy that mandates a green building rating system standard that applies to all new municipal buildings.

Action 8: Adopt urban planning principles and practices that advance higher density, mixed use, walkable, bikeable and disabled-accessible neighbourhoods that coordinate land use and transportation with open space systems for recreation and ecological restoration.

Action 9: Adopt a policy or implement a programme that creates environmentally-beneficial jobs in slums and/or low-income neighbourhoods.

Urban Nature

Action 10: Ensure that there is an accessible public park or recreational open space within half a kilometer of every city resident by 2015.

Action 11: Conduct an inventory of existing canopy coverage in the city; and then establish a goal based on ecological and community considerations to plant and maintain canopy coverage in not less than 50% of all available sidewalk planting sites.

Action 12: Pass legislation that protects critical habitat corridors and other key habitat characteristics (e.g. water features, food-bearing plants, shelter for wildlife, use of native species, etc.) from unsustainable development.

Transportation

Action 13: Develop and implement a policy which expands affordable public transportation coverage to within half a kilometer of all city residents in ten years.

Action 14: Pass a law or implement a programme that eliminates leaded gasoline (where it is still used); phases down sulfur levels in diesel and gasoline fuels, concurrent with using advanced emission controls on all buses, taxis, and public fleets to reduce particulate matter and smog-forming emissions from those fleets by 50% in seven years.

Action 15: Implement a policy to reduce the percentage of commuter trips by single-occupancy vehicles by 10% in seven years.

Environmental Health

Action 16: Every year, identify one product, chemical, or compound that is used within the city that represents the greatest risk to human health and adopt a law and provide incentives to reduce or eliminate its use by the municipal government.

Action 17: Promote the public health and environmental benefits of supporting locally grown organic foods. Ensure that 20% of all city facilities (including schools) serve locally grown and organic food within seven years.

Action 18: Establish an Air Quality Index (AQI) to measure the level of air pollution and set the goal of reducing by 10% in seven years the number of days categorised in the AQI range as 'unhealthy' or 'hazardous'

Water

Action 19: Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumption greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by 10% by 2015.

Action 20: Protect the ecological integrity of the city's primary drinking water sources (i.e. aquifers, rivers, lakes, wetlands and associated ecosystems).

Action 21: Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharges by 10% in seven years through the expanded use of recycled water and the implementation of a sustainable urban watershed planning process that includes participants of all affected communities and is based on sound economic, social, and environmental principles.

Appendix E

Full list of contributors and sources

No.	Indicator	Sources	Organisation
1	Air Quality Exceedences	Grant Ravenscroft Hennie Schrader Sally Benson	City of Cape Town
2	Renewable energy supplied as percentage of total	Brian Jones Shirene Rosenberg	City of Cape Town
3	Energy use per sector	Mark Borchers	Sustainable Energy Africa
4	Carbon dioxide per capita	Apie J Peens (Petroleum product sales) Brian Jones Alison Hughes (Coal use database)	ChevronTexaco City of Cape Town UCT: Energy Research Centre
5	Public and private transport	Mark Skriker	City of Cape Town
6	Green space per capita	John Bennet Fiona Grimmet	City of Cape Town
7	Extent of natural vegetation conserved	Patricia Holmes	City of Cape Town
8	Extent of invasion by alien invasive species	Patricia Holmes Erika Foot	City of Cape Town
9	Extent of urban sprawl	Ken Sinclair-Smith	City of Cape Town
10	Water use per capita	Jaco de Bruyn	City of Cape Town
11	Fresh water quality	Candice Haskins	City of Cape Town
12	Coastal water quality	City of Cape Town: Coastal Water Quality Report 2005	City of Cape Town
13	Proportion of effluent reused	Jaco de Bruyn	City of Cape Town
14	Landfill lifespan	John Barlow Deon Rhode	City of Cape Town
15	Waste disposal per capita	Deon Rhode	City of Cape Town
16	HIV/AIDS incidence	Ivan Toms Bryan Chute Ivan Bromfield	City of Cape Town
17	TB incidence	Ivan Toms Bryan Chute Ivan Bromfield	City of Cape Town
18	Leading cause of death	Ivan Toms Bryan Chute Ivan Bromfield	City of Cape Town
19	Incidence of murder	SAPS Website	South African Police Service
20	Incidence of rape	SAPS Website	South African Police Service
21	Incidence of commercial/ industrial theft	SAPS Website	South African Police Service
22	Drug use and drug-related crime	SAPS Website South African Community Epidemiology Network on Drug Use	South African Police Services South African Community Epidemiology Network on Drug Use
23	Access to water	Jaco de Bruyn	City of Cape Town
24	Access to sanitation	Jaco de Bruyn	City of Cape Town
25	Percentage of informal housing	Elvira Rodriques Janet Gie Craig Haskins	City of Cape Town

No.	Indicator	Sources	Organisation
		John Sterne	
26	Incidence of fires in informal settlements	Gillian Fortune	UCT: Disaster Mitigation for Sustainable Livelihoods Programme
27	Adult literacy	Statistics South Africa General Household Survey	City of Cape Town
28	Highest level of education achieved	Statistics South Africa: General Household Survey Theo Hamman	Statistics South Africa Provincial Government of the Western Cape
29	Unemployment	City of Cape Town: State of Cape Town Report 2006	City of Cape Town
30	Gross geographic product	Marsha Orgill	City of Cape Town
31	Poverty and income disparity	Craig Haskins Statistics South Africa: Census 2001	City of Cape Town Statistics South Africa
32	Public education and awareness programmes	Elvirena Coetzee (Environmental Resource Management) Randall Adriaans (Catchment Management) May Lewis and Washiefa Wouterson (City Health) Carlo Vizzi (Economic and Human Development)	City of Cape Town
33	Staff education and awareness programmes	Fred Sherwet	City of Cape Town
34	Number of Local Agenda 21 projects	Grace Stead	City of Cape Town
35	Capital budget spent	Karen Fourie	City of Cape Town
36	Election turnout	Independent Electoral Commission website	Independent Electoral Commission

References

Annexure R
Integrated Waste Management Plan
(See also PDF File)

Solid Waste Management Dept Integrated Waste Management and Service Delivery Sector Plan

Solid Waste Management Sector

The Council's Solid Waste Management (SWM) Department is one of the providers of waste management services in the Cape Town municipal area of approx 2 400 km^2 and approx 3.2 million people (2005 estimate). SWM is the Dept delegated by Council to ensure that such municipal services are provided as required per the SA Constitution, Schedule 5B. The SWM Dept is thus the regulator of waste management activities at a municipal level in Cape Town. The Dept's services and those of external service providers have to be aligned and transformed in accordance with the statutory reforms related to the National Waste Management Strategy based on Integrated Waste Management (IWM). This requires additional services over and above the present Constitutional obligations that require municipalities to ensure cleaning/cleansing, collection and disposal services. Tariff information for the Council's services is contained in the Council's Tariff Schedule.

IWM in Cape Town is guided by the Council's IWM policy and executed via a statutory, detailed IWM plan that is part of the Integrated Development Plan (IDP). Principles and information about the management of waste, service standards and levels, and services provided by the Council are also contained in the IWM policy. The overarching policy objectives are aimed at minimizing waste being produced that is currently disposed at landfill sites or is illegally dumped, to conserve resources and the environment, to ensure basic waste management services, as well as reduce human and environmental health, and socio-economic impacts.

Waste minimisation should be measured by the quantity of waste actually landfilled versus the quantity that is successfully diverted from landfills (i.e. the saving on landfill airspace). The challenge is to continually improve residents' access to basic waste collection services despite the challenges of a growing city and a limited budget. This is measured by the number of residents with access to these services. City cleanliness is highly visual, and is measured by means of a photometric index that measures littering qualitatively, which could be augmented by the quantum of illegal dumping.

The waste management objectives and outcomes have to be achieved concurrently and integrated through various joint initiatives with residents, commerce and industry. To give effect to sustainable integrated waste management services, and to regulate such activities, the Council's Service Authority role must be enabled via a new Council by-law that will be promulgated soon. This will conclude the municipal law reform for waste management that was needed as a consequence of municipal restructuring.

For waste management, the most important tasks at hand relate to replacing almost-redundant infrastructure (full landfills) by creating new infrastructure that will accommodate

expected population and economic growth, to improve access to basic services in poor areas, and to create waste minimisation and capital infrastructure partnerships that will lead to initiatives for reducing the amount of waste and the Council's capital expenditure requirements. The waste minimisation strategy is based on various initiatives that are dependent on partnerships with external entities engaged in manufacturing, production and recycling activities. Many of these initiatives have good potential for the creation of a sustainable recycling industry that will lead to further job creation in support of local economic growth targets.

Vision for Waste Management in Cape Town

The long-term vision for the Cape Town waste management sector is to improve access to basic services for residents to as close as possible to 100% within the limitations of available funds and unplanned growth, to develop multiple integrated initiatives that will reduce waste and the associated impacts substantially, to improve the income generated by the Council's waste services, to optimise the utilisation of the Council's resources and capital, and to generate other sources of funding through Public-Private Partnerships within the Cape Town municipal area.

National/Provincial Legislative Requirements

The SA Constitution, Schedule 5B requires municipalities to provide cleaning/ cleansing, waste collection and disposal services and infrastructure. The *National Environmental Management: Draft Waste Management Bill* (published for comment in Dec 2006), will ultimately become the framework legislation for the regulation of waste management activities in South Africa. The National Waste Management Strategy, 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 documents that define how to achieve an integrated waste management approach, focusing on waste minimisation and service delivery.

The Local Government Municipal Systems Act, S.11 requires a Council to formulate policies. In terms of the national regulator's (Dept of Environmental Affairs and Tourism (DEAT)) policy, a municipality must formulate an IWM Plan as a means of minimizing waste disposal, providing services, preserving and extending the use of landfill sites and protecting the health and the environment. The most important legislative requirements for these 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. White Paper on Integrated Pollution and Waste Management for South Africa (Government Gazette 20978, 17 March 2000) – DEAT national waste management policy;
5. National Waste Management Strategy (DEAT, 1999);
6. The National Water Act (Act 36 of 1998);
7. The Hazardous Substances Act (Act 15 of 1973) & Regulations;
8. The National Health Act (Act 63 of 1977);
9. The Occupational Health and Safety Act (Act 85 of 1993) and Regulations;
10. The Road Traffic Act (Act 29 of 1989);
11. The Local Government Municipal Systems Act (Act 32 of 2000);
12. The Local Government Municipal Structures Act (Act 117 of 1998);
13. The Local Government Municipal Finance Management Act (Act 56 of 2003);
14. Local Agenda 21 (Sustainable Development principles at a local government level – SA is a signatory to the UN's Agenda 21).

Current Status

Council's IWM Policy, which underpins the IWM Plan with the overarching aim of striving towards the 2001 Polokwane Declaration's "zero waste to landfill" goal by 2022, was completed and adopted by Mayco in 2006/2007 (MC08/05/06). A statutory IWM Plan was adopted as part of the IDP in 2006/07, has been reviewed and updated, and forms part of the new 5-year term-of-office IDP. It aligns waste management activities in Cape Town with national, provincial and Council priorities.

Council's IWM by-law for the regulation of waste management activities within the City's jurisdiction is currently being drafted as part of the required institutional framework for waste management. The DEAT has submitted a Draft Bill for Waste Management to Parliament for public comment. It is anticipated that further alignment in the waste management sector will be required once the Act has been promulgated.

Major Achievements of a Strategic Nature (Dec 2000 to Jan 2007)

- Mayco adopted IWM Policy and IWM Plan as part of 2006/07 IDP (MC08/05/06).
- Standardisation of services across Metro by e.g.:
  - Once a week refuse collection throughout the year implemented for all areas
  - Agreed standard compactor vehicle crew size: Driver plus 4 workers.
  - Implementation of a community-based integrated area cleaning and collection system in informal areas that service approx 1/3 of the city's population.
  - Equitable garden refuse collection options and twenty community Drop Off sites successfully implemented across the City, each with an average captive area with a 7 km radius.
  - Ongoing phasing out of skip services - only provided as an initial emergency measure where new settlements are established.

- Containerisation plan of all formal households, with ongoing repairs and replacement plan implemented in 2005/06.
- The City was awarded the cleanest metropolitan municipality award in 2003, and came second in 2005 in the biennial SA National competition.
- Tariff convergence - acceptance of a new tariff structure with effect from 1st July 2002, 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.
- Successful implementation of a top management structure for SWM that finalises the transformation from seven Administrations' management structures as one.
- Completion of the EIA for the Regional Landfill site in January 2007 (two candidate sites identified in the far northern area) – the selection of a site is pending the provincial environmental department's Record of Decision.
- Completion of Swartklip Transfer Station at the landfill, strategically located close to high-density communities.
- Initiating the closure and rehabilitation of Brackenfell and Faure landfills.
- Successful applications to Western Cape Dept of Environment and Development Planning for extensions of Bellville South and Coastal Park landfill sites.
- Free-of-charge disposal at landfills of builder's rubble (approx 900 000 tonnes).
- Successful diversion from landfill and chipping and composting of most of the City's garden waste (current est. airspace saving approx 637 000 m^3 per annum).
- Commencement of two pilot projects for the diversion, crushing and recycling/ reuse of demolition waste.
- Implementation of a dual bag collection pilot project in the South Peninsula area aimed at supporting the diversion of recyclable waste.
- Developing a recycling and safe disposal program for Compact Fluorescent Lamps in conjunction with Eskom, the lighting industry and other role players.
- Continued successes with the Waste Wise campaign - Festive Season campaign commended by the public media and political leadership.
- Establishment of a Waste Exchange Website and an Information Centre at the Civic Centre in the Cape Town CBD.
- Council approval for the establishment of an Internal Business Unit.
- Providing comment and input on the National Environmental Management: Draft Waste Management Bill prior to submission to Parliament and publication for comment.

Key Strategic Issues and Challenges

- The reduction of Basic Service backlogs (residential waste collection) and application of available funds are impacted by unplanned population growth;
- Waste management infrastructure creation and funding are inadequate to prevent health and environmental degradation, due to the projected growth in the city, and the infrastructure condition, availability and age.
- The future replacement or the establishment of additional infrastructure will be hampered by the inadequate income generated from tariff or rates provisions.

- External funding is required for the onerous financial implications needed for the implementation of various waste minimisation initiatives per the IWM Plan.
- The finalisation of an organisational structure and the appointment of all levels of management and supervisors is needed to reduce skills shortages and instill the required discipline to improve service delivery and levels of income.
- Streamlining of HR policies is required to allow shift work to utilise staff, equipment and infrastructure where service needs require this.
- Implementation and roll-out of the IWM Plan.
- The implementation and roll-out of the IWM Plan to increase waste minimisation efforts and reduce associated impacts is not a municipal function per se, and will require cooperation from all persons and businesses, and the development of strategic partnerships with the industry.
- Municipal Systems Act S.78 investigation and decisions regarding 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.

Critical Success Factors

a. Adequate capacity for service delivery in terms of staffing, resource allocation, expenditure and procurement approvals;
b. Adjustment to tariffs for service provided to ensure that capital and operating requirements can be funded sustainably;
c. Timeous and successful completion and adjudication of tenders;
d. Public private partnerships or alternate funding mechanisms to provide for growing capital and operational waste management needs.
e. Legislation that can be used to enforce waste minimisation initiatives needed to meet policy and national targets.
f. Dedicated capacity to enforce waste management laws and by-laws linked to environmental conditions and waste control.

Strategy of the City of Cape Town's Solid Waste Management Dept for Integrated Waste Management and Service Delivery

The SWM Dept provides services to residential and public areas, as well to parts of commerce, whilst the private sector services the industrial sector and sectors with special (hazardous) waste needs. The Council derives income for routine service provision by billing for services per its Tariff schedule. The city's population size is approx 3.2 million people and current growth averages approx 2% p.a. Without waste minimisation, the projected growth in waste is approx 7% p.a., which is higher than expected net population growth. Minimising waste and public partnerships become key strategic focuses in the medium to long-term, otherwise the city will experience rapid environmental and health degradation and services will become unstable.

A number of key industries and business sectors have a presence and should feature prominently in terms of a city-wide recycling strategy that could link with and support provincial and national initiatives. Currently the Council's waste management services and infrastructure include refuse collection with a dedicated fleet, area cleaning and cleansing, transfer stations, a material recovery facility and landfills for waste disposal, and community drop-off facilities used for the recovery of recyclable materials. A twenty-year infrastructure replacement and development plan has been compiled, based on projected growth and development in the city.

Cape Town currently reduces waste to landfill by approx 14% through various mechanisms that include the composting of garden greens, the crushing and reuse of builder's rubble, and diverting glass, some plastics and cans from landfill. The target for 2011/12 is set at 16.5%, taking into account the complexities added through population growth and economic development, and extraneous factors such as the ambitious aim of Cape Town Tourism to grow tourist numbers from approx 1.7 million to 3 million people over the same period.

Changes in the waste management sector are highly dependent on the introduction of new mechanisms that will make recycling and waste minimisation a sustainable reality. Success will further depend on a combination of regulatory instruments, financial incentives and disincentives, and the active participation and education of consumers, producers and waste management service providers. The establishment of a sustainable recycling sector within the waste management sector presents a viable economic opportunity that will create additional jobs. In this respect, the creation of partnerships with the private sector and other role players is a key strategy, since recycling occurs during manufacturing and production. Basic premises are that agreements between spheres of government and the private sector will be concluded soon, and that legislation will be promulgated to support and drive waste minimisation.

Compared with similar experiences in countries such as New Zealand (a pioneer in waste minimisation implementation since 1995), it is likely to take between five to ten years to establish a sustainable recycling sector as an integral part of the local economy. The SWM Dept has developed an overarching long-term integrated waste management strategy with key sub-strategies, contained in detail in the IWM Plan, which is the implementation vehicle for the Council's IWM Policy. The various sub-strategies aim to turn the traditional waste management and service delivery approach around to achieve the overall aim of minimising waste and associated impacts on the socio-economic and environmental fabric of the city. The strategies/ plans that make up the overarching Integrated Waste Management Strategy are summarised 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) **Intergovernmental Strategy**: Clarify roles and responsibilities and lobby for increased funding for integrated waste management.
3) **Municipal Area Waste Regulator Strategy**: Institute measures that will enable the Council's waste management regulatory roles and responsibilities.
4) **Labour Utilisation Strategy:** Create an acceptable, flexible staffing arrangement at strategic infrastructure that will improve asset utilisation and reduce illegal dumping.

5) **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 an integrated collection and area cleaning service for all informal settlements.

6) **Recycling And Waste Minimisation 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 green house gasses (GHG's).

7) **Lobbying Strategy**: Lobby the relevant legislators for the necessary changes that must enable EPR, CP&SC, materials recovery and recycling.

8) **Stakeholder Communication, Education And Awareness Strategy**: Improve stakeholder attitudes and participation as a base for recycling, and educate people regarding best practical options.

9) **Service Growth Strategy**: Institute community-based service provision to stimulate job growth, and generate private sector contracts in growth areas that are not possible to service via with the Council's current resources.

10) **Law Enforcement Strategy**: Generate an 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.

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:** 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 capital procurement and by a repair and maintenance programme, or more likely, augment through a full-maintenance leasing (FML) programme.

15) **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.

16) **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.

Strategic Programmes Goals & Objectives with Key Deliverables/ Outcomes

The summary of strategic programmes, projects and initiatives for waste minimisation and service delivery is set out below. The activity details contained in the IWM Plan, are being updated accordingly for the period starting 2007/08. The aim of the SWM Dept is to ensure the long-term sustainability regarding effective, efficient and economical waste management

service delivery for the city's residents, and to regulate waste management activities across the waste spectrum in the City of Cape Town.

    a. Minimise waste to landfill, improve access to basic waste management services, complete an IWM By-law for promulgation and implementation, and implement a Waste Information System.
    b. Key projects and initiatives:
      i. Construct and commission a new Northern region landfill site to provide landfill airspace for closed landfills by 2011/12;
      ii. Establish 3 new transfer stations:
        1. Oostenberg project starts 2007/08 (three years till commissioning);
        2. Tygerberg, commences 2008/09 (three years till commissioning);
        3. Helderberg commences 2009/10 (three years till commissioning).
      iii. Roll-out of mini-MRF's (material recovery facilities).
      iv. Establish an alternative-technology disposal facility by 2008/09.
      v. Implement contract services via community-based organisations for integrated area cleaning and waste collection in informal areas by 2007/08.
      vi. Implement contract services for sandy areas clean-up programmes in disadvantaged communities via community-based organisations by 2008/09.
      vii. Establish a split-bag collection system, roll-out to start 2007/08.
      viii. Roll-out education and awareness programmes regarding waste management and waste minimisation (continuation of previous programmes).
      ix. Institute aggressive waste management, minimisation and re-use of builders' rubble by facilitating the establishment of rubble crushing plants, and implementing by-law enforcement and tariffs.
      x. 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.
      xi. Rehabilitate landfill sites (ongoing).
      xii. Establish a preventative asset maintenance programme for SWM fixed and movable assets, plant, equipment, infrastructure and superstructure.

Resources to be used to achieve planned Outcomes (next MTREF period)

Resources required	2007/08	2008/09	2009/10
Capex[1]	**R163 100 00**	**R198 000 000**	**R223 950 000**
Opex [1]	**R1 147 015 309**	**R1 205 513 090**	**R1 266 994 257**
Staff[2]	**2 100**	**n/a**	**n/a**

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[1] Financial figures per 2007/08 draft budget estimates (unapproved, not finalised) at 5.1% parameter growth, which may change due to future Council resolutions.
[2] Figure reflects actual staff complement as at February 2007, and do not include critical vacancies or scarce skills shortages needed for service delivery.

Key Performance Indicators, with benchmarks

The KPI's are contained in the SDBIP's that are still to be finalised as part of the next three-year MTREF period and 5-year term-of-office IDP starting 2007/08. The achievement and measuring of targets are in line with Service Delivery Business Implementation Plans (SDBIP's), and are reflected at the high level as follows:

1. Demand Management plan (waste minimisation): Improve landfill airspace savings from 14% to 16.5% by 2011/12;
2. Increase basic service access to 99% (impacted by city economic, planned and unplanned population growth);
3. Area cleanliness (as measured per a photometric index) to be increased to 67 on the photometric index (as benchmarked in the IWM Policy).
4. Implement capital projects per the approved schedule for three-year MTREF period starting 2007/08;
5. Promulgate a new City of Cape Town IWM By-law by end-2007 to align waste management law enforcement with national imperatives and repeal all previous by-laws (SWM Dept's contribution to the Council's law reform);
6. Implement a Waste Information System by end-2007 (dependent on finalisation of the Western Cape Province Dept of Environment and Development Planning and the national Dept of Environment and Tourism's system roll-out).

The critical role of ICTs in delivering shared growth

A contribution to the City of Cape Town Economic and Human Development Strategy

Date: 9 February 2006
Status: First draft

About this document

This document has been prepared as an input into the City of Cape Town Economic and Human Development Strategy. It makes the case for a central role for ICTs in the strategy, especially because ICTs have a critical role to play in delivering shared growth.
As such, it urges that the Strategy:

- promotes infrastructure investment in ICT (telecommunication) networks

- encourages ICT diffusion in government, business, education, health, civil society and communities at large

- recognises the growing value of computer and information literacy, alongside traditional alphanumeric literacy

- gives attention to the integral role of ICTs in all economic and social developmental projects, and suggests what some appropriate projects could be

Background

The Economic and Human Development Strategy addresses "the competencies assigned to local government under the Constitution and relevant legislation. The Strategy focuses on the core economic competencies of the Directorate for Economic and Human Development and on those human development issues that impact most directly on residents' economic livelihoods" (quoted form the executive summary).

The draft strategy document asserts that: "Economic and human development lies at the core of the City's mission. The Strategy seeks to reverse the current trend of increasing poverty and unemployment. It has the following aims for the city:

- increase economic growth to more than 6% by 2014, in line with national targets

- create jobs, especially low skilled jobs, and halve official unemployment by 2014

- reduce the gap between rich and poor and improve the GINI coefficient

- halve poverty (those qualifying for the indigent grant) by 2014

- build social and human capital, in line with national and provincial strategies, to meet the changing needs of the economy and the needs of the poor"

Further, the Strategy provides a framework for addressing these aims and focuses hence on:
- Growing the formal developed economy and broadening participation in this economy

- Growing the formal and informal economies of the poor and broadening economic participation

- Establishing economic bridges to ensure greater inclusiveness, integration of the first and second economies and redress of historical imbalances

- Building the social and human capital of the poor

- Ensuring all residents are able to access the social package[xxxi] including government grants and subsidies.

Combined these make up the '5 prongs' or 'stars' of the Economic and Human Development Strategy, each with five strategic interventions. The first three stars are explicitly economic. The other two stars are about human development. The five prongs of the strategy, and the five strategic interventions within each, are summarised in the figure below.
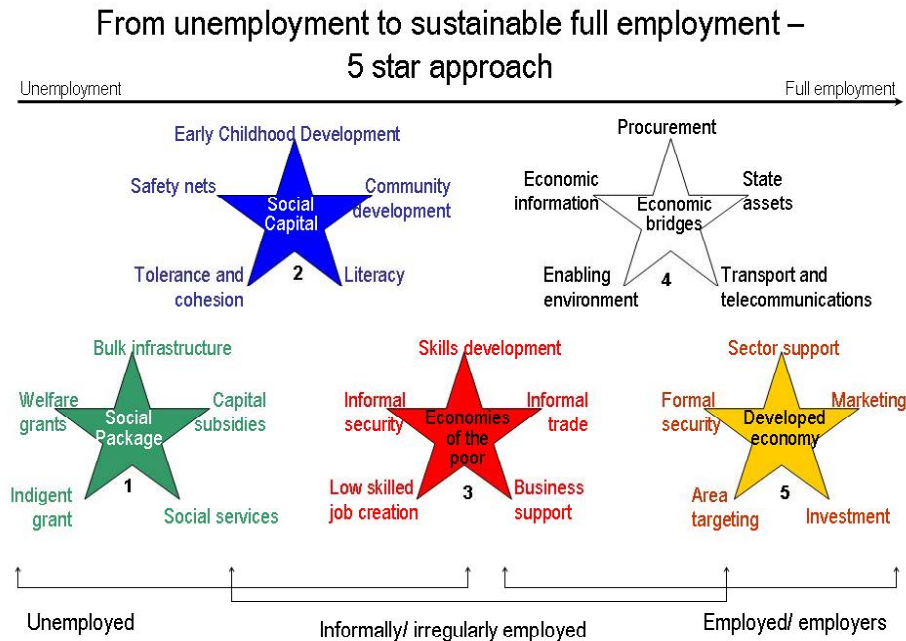

Figure 1: The proposed Five Star Economic & Human Development Strategy framework[xxxii]

1 Shared economic growth, social development, and the role of ICTs[xxxiii]

"In our global, networked economy and society, information is an essential resource for capacity building and social and economic development"[xxxiv]

The modern global economy is increasingly a knowledge economy[xxxv]. A knowledge economy[xxxvi] is one in which the generation and exploitation of knowledge play a predominant part in the creation of wealth[xxxvii]. The economic future of Cape Town depends on successfully competing in the tertiary, services based, knowledge-driven economy[xxxviii].

But economic growth will not by itself ensure that the overall level of poverty is reduced. Policies are needed that ensure both high levels of economic growth *and* ensure that this significantly impacts poverty. This 'shared growth' perspective is reflected in the objectives of the Strategy outlined in section 2. It holds that whilst higher levels of economic growth are essential to reducing poverty, the resulting benefits must be evenly distributed if they are to be sustainable. A shared growth strategy is thus both pro-growth and pro-poor.

As the draft Strategy points out, poverty exists when an individual's or a household's access to income, jobs and/or infrastructure is inadequate or sufficiently unequal to prohibit full access to opportunities in society. More broadly still, poverty can be seen as being deprived of the information

needed to participate in wider society at the local, national and global level[xxxix]. If by implication persistent poverty is associated with a 'knowledge gap', then this suggests a need for policies that encourage greater communication and information flows within and between communities and countries. The 'digital information divide'[xl] is therefore a cause, as well as a consequence, of poverty.

ICTs and economic growth

ICTs play a critical role in industry competitiveness. The World Bank has confirmed the important part that ICTs play in the development of a competitive economy[xli]. The direct connection between the expansion of information communication technologies and growth and economic development is well established by policy makers, researchers, funding organisations and others worldwide.[xlii] Where it has been studied (mainly in the developed world), productivity gains are characterized by ICT intensive growth[xliii].

The causal relationship between the wider adoption and use of ICT within an economy and economic development has most commonly been approached by consideration of the relationship between the use of ICT (including the internet) and productivity growth at the firm, industry and national levels. This has been surveyed by the United Nations Conference on Trade and Development (UNCTAD)[xliv]. The E-Commerce And Development Report 2003 finds there to be widespread international evidence of the phenomenon of skill-biased technological change, and the positive impact of ICT diffusion into traditional sectors of the economy. The OECD has also found a positive relationship between the diffusion and take-up of ICTs and economic growth[xlv]. There are two main ways that this happens.

Productivity improvement: There is conclusive evidence that investment in ICTs has made a significant contribution to productivity growth*[xlvi]*. Sectors in which ICT investment is particularly intense (e.g. distribution and financial services) have experienced faster multi-factor productivity growth. Further, ICT production has made an important contribution to aggregate labour and multifactor productivity growth*[xlvii]*.

Skill-biased technological change: The second way in which the adoption and use of ICTs impacts economic growth is through a phenomenon known as 'skill-biased technological change'. This asserts that technological change results in greater demand for more skilled, better-educated labour, which leads to an increase in the relative wages of these workers and shifts the composition of the workforce in favour of such workers.

In developing nations there is less systematic evidence of a correlation between ICT use and economic performance. Some economists have presented evidence that the impact of ICTs in less developed nations is likely to be small[xlviii]. This is because they lack the physical and human capital, along with the required institutions to exploit the e-economy.

But this does not apply to South Africa, which already has a sophisticated industrial and service sector. There is hard evidence[xlix] of improved market access and rapidly increased exports by selected developing and transition economies, at least partly as a result of business process outsourcing, including the relocation of back-office operations by transnational corporations. The implication is that there are promising ICT-related niches in global markets for many developing countries possessing skilled labour and sufficient Internet bandwidth access.

In general, it has become clear that ICT capability (production) and diffusion (use) is increasingly important for economic growth overall[l], as well as for the development of the ICT industry itself, and key user industries.

Global technology trends and their impacts[li] cannot be ignored or avoided by South African government agencies. These include:

- The expanding reach and capability of mobile technologies, including cell phones to deliver information and soon even television.

- The continuing decrease in the cost of computing hardware, especially data storage. Computing power is becoming more affordable by more people and firms.

- The widening acceptance of free and open source software (FOSS), which is reducing costs and opening up participation in the knowledge economy

- Better and wider use of ICTs by governments everywhere to deliver services

- Technology as a driver of globalization – information based activities are becoming distributed around the globe, to the benefit of developing countries

- Growth in ICT based industries – that is, companies that depend fundamentally on using ICTs, such as biotechnology and call centres

- An explosion of digital content and consequent shift in the culture dominance of public media.

Either these are recognised and embraced, which will allow South African ICT industry to compete and grow and these technologies to be used in the fight against poverty, or the very basis for participation of Cape Town in the knowledge economy will erode.

ICTs in the formal Cape Town economy

The Cape Town economy is increasingly a tertiary, services based, knowledge-driven economy. The productivity and competitiveness of units or agents in the economy (be they individuals, firms, regions or nations) depend increasingly on their capacity to generate, process and efficiently apply information. This is where most new job opportunities.

The Micro-Economic Development Strategy

The Micro-Economic Development Strategy (MEDS) for the Western Cape developed by the Department of Economic Development in 2005[lii] identified fourteen economic sectors and four cross cutting activities as being critical to the economic development and transformation of the Western Cape. It is significant that every sector depends to some degree on the appropriate use of ICTs, and three of the secondary sectors (electronics, biotechnology and film) and three of the tertiary sectors (tourism, call centres/BPO and financial services) are key user industries, heavily dependent on technology. A fourth tertiary sector is the ICT industry itself.

The MEDS report is clear that the Western Cape has major advantages in that it already has a concentration of knowledge intensive industries, skills, and supporting infrastructure. These can be used to enhance the performance of traditional industries. Information is needed by farmers to improve crop yields and market their products more profitably. Manufacturers deal in information when negotiating with suppliers, managing internal processes, marketing their products and handling distribution. What allows information to flow through the economy is the pervasiveness of ICT (telecommunications) networks, the availability of a computer and information literate workforce, and a supportive ICT industry.

ICTs and social development

Since ICT use results in improved access to information, then increased deployment leads to greater social and economic opportunities.

This happens through improved ICT diffusion in the formal economy, and the use of ICT by government to improve administrative efficiency and enhance service delivery. Additionally, improving

the accessibility of ICTs by people who cannot otherwise afford them (the digital divide) helps to ensure equitable, shared growth.

ICTs are thus not only a tool for extending economic opportunities, but also for reducing poverty by extending health services, expanding educational opportunities and generally improving the quality of life for the many disadvantaged people of the Western Cape[liii]. However, these desired outcomes are achievable when ICTs are deployed in conjunction with policies supporting equitable access to social institutions such as health care, education, government, and other benefits potentially available through the application of digital tools and telecommunications. ICTs are an important enabler of access to these services and social activities and play a vital role improving the efficiency of delivery, but they can never be a substitute[liv]. They are a necessary but insufficient condition for economic development.

The ILO has noted that investments in ICTs alone are not sufficient for equitable development to occur[lv]. A number of researchers have demonstrated that the application of ICTs is not sufficient to address problems of poverty without adherence to the principles of integrated development. Unless there is at least minimal investment in transport, education, health and social and cultural facilities, it is unlikely that investments in ICTs alone will enable poor families and communities to cross the threshold from decline to growth[lvi].

To fully understand this important cross-relationship between ICTs and shared economic development, it is important to value of outcomes beyond traditional measures such as GDP, employment and enterprise creation. The leveraging of ICT to bring about broader public goods including improved health care, literacy, civic responsiveness and equitable access to economic opportunities creates social capital that is essential for a community's economic development potential to be realised. A view that overlooks this critical, dynamic role of social capital formation substantially underestimates the broad economic development benefits of ICT.

Access alone is insufficient; ICTs must also mediate the delivery of useful services and civic interaction. But these will also have no productive value if they do not contribute to the economic and social wellbeing of individuals. And unless individuals can place a value on the cost of direct ICTs (including the time taken to learn the necessary skills) then they will not be sustainable in the longer term.

Thus, although community members may have significant interest in the aggregate economic growth that can be leveraged from ICT, a broader common interest is the widespread availability of affordable services and the ability to utilise technology to expand local education, enhance local health care, improve civic interaction and develop mechanisms for community support (daycare services, co-ops, crime prevention, transport pooling, etc.).

One framework that attempts to draw these issues together is the UNDP framework for poverty alleviation incorporating ICTs. This is diagrammatically reproduced here.
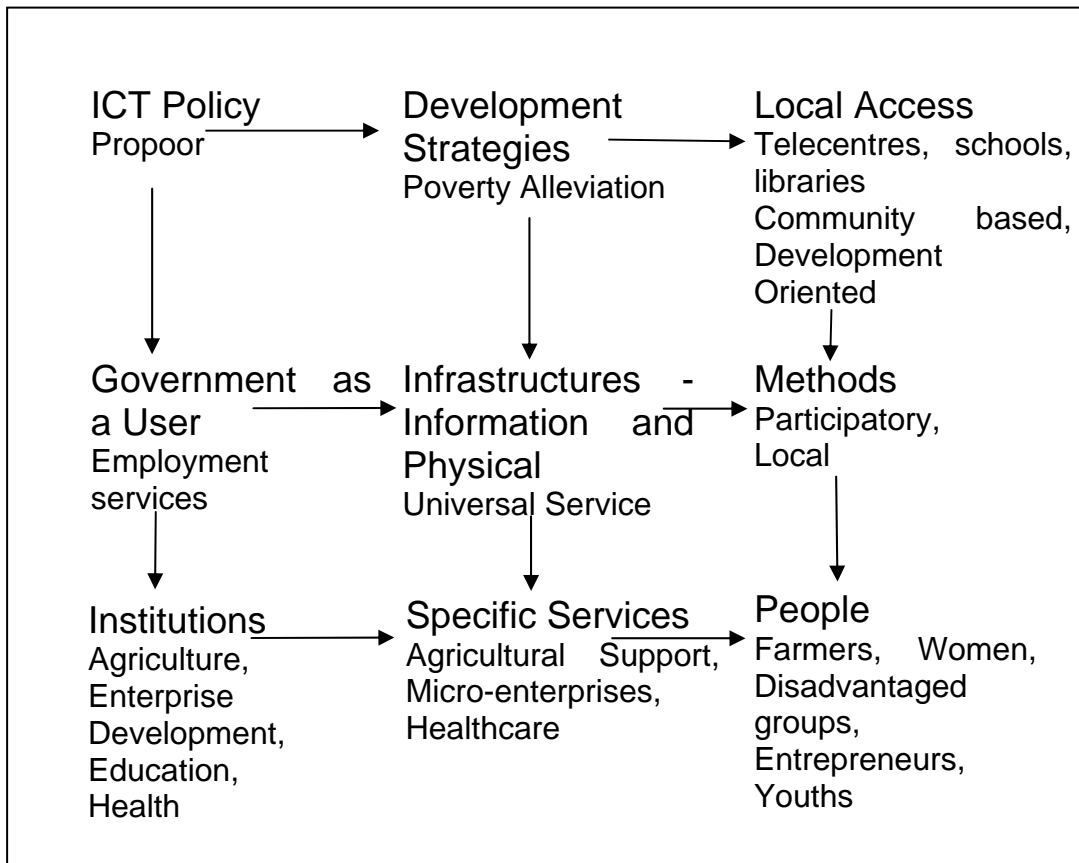
ICT Policy → Development Strategies → Local Access

ICT Policy
Propoor

Development Strategies
Poverty Alleviation

Local Access
Telecentres, schools, libraries
Community based, Development Oriented

Government as a User
Employment services

Infrastructures - Information and Physical
Universal Service

Methods
Participatory, Local

Institutions
Agriculture, Enterprise Development, Education, Health

Specific Services
Agricultural Support, Micro-enterprises, Healthcare

People
Farmers, Women, Disadvantaged groups, Entrepreneurs, Youths

Figure 2: A framework for poverty alleviation making use of ICTs[lvii]

The critical relevance of this framework is that it integrates poverty alleviation development strategies with the provision of local access to ICTs, by involving government, business and individuals as users. This in turn requires consideration of ICT infrastructure and its availability to service delivery institutions as well as the people who are the ultimate target of the intervention.

ICT as the pump for local growth

A model for public sector intervention

Growth in the local economy is not just a consequence of leading companies in the key economic sectors growing and employing more people. Especially in a tertiary, knowledge economy, their success depends on a variety of support and supply companies. These include business support firms such as accountants and lawyers, but also IT firms capable of supplying the ICT tools and skills that all companies depend on to communicate and manage their operations.

All these firms in turn depend on the availability of economic infrastructure, which have traditionally been roads, railways and ports together with utilities. In the knowledge economy telecommunications infrastructure has become equally important. Also required is a pool of skilled employees, and legal, financial and government sectors that enable a business environment conducive to investment and business formation. This is illustrated in the following figure:
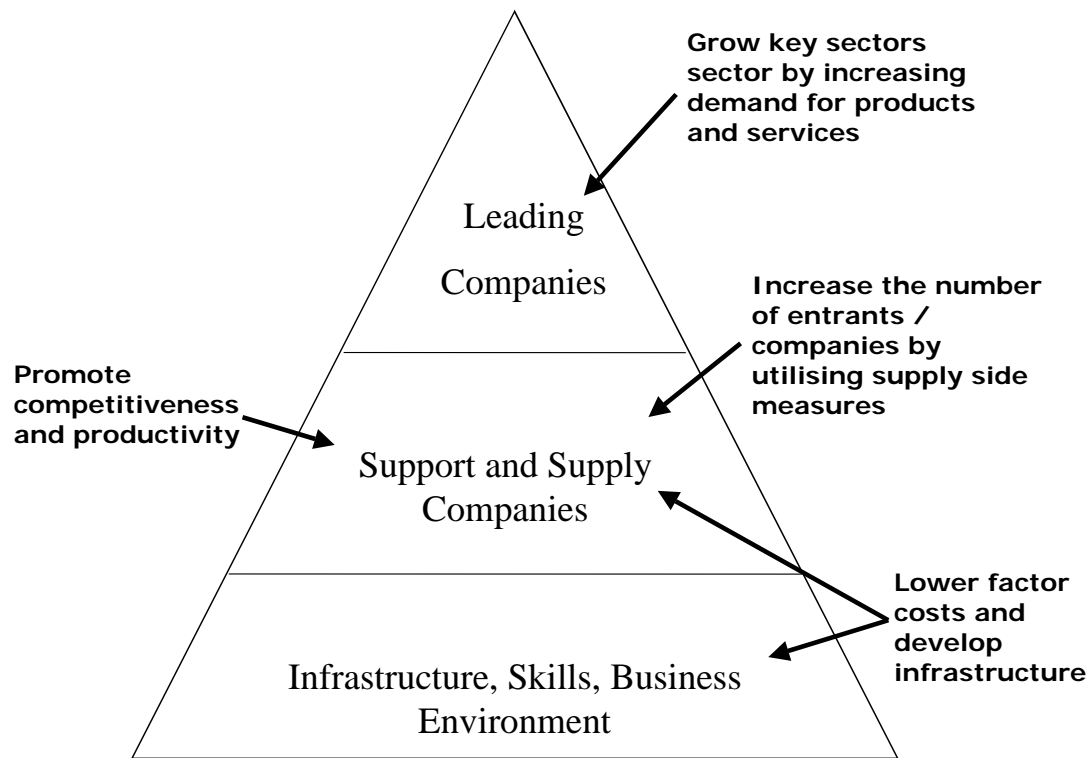
Figure 3: Illustration of the dependency of leading companies on support and supply firms and on the

economic environment

This diagram also indicates the kinds of public sector interventions that can be considered to grow the formal economy overall.

- Leading companies are nurtured through sector support activities that improve the competitiveness of high potential sectors as a whole and seek to increase the demand for their products and services.

- The supply of the inputs that the leading firms depend on - especially when these are knowledge economy firms – needs to be assured though appropriate supply-side measures to:

- increase the number of companies;

- promote their competitiveness and productivity; and

- lower their input costs

- Lower costs are driven by the availability of efficient economic infrastructure, for example public transport, and a well functioning legal and financial environment.

Where ICTs fit into this model

The primary importance of the ICT industry is as a critical enabler of all other business activities. As we have seen, competitiveness and productivity depends on it. As this diagram further illustrates:

Leading ICT
companies

Effect of ICT on
competitiveness
and productivity

Tourism, BPO

Financial
Services

ICT

ICT Support and
Supply Companies
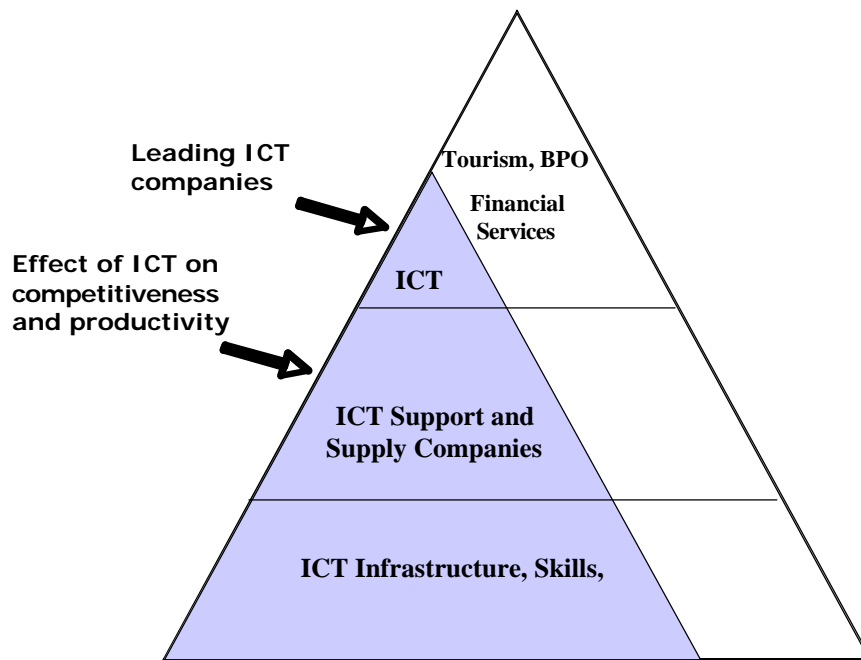
ICT Infrastructure, Skills,

Figure 4: Illustration of the dependency of leading companies (including leading ICT companies) on

ICT support and supply firms and on the ICT infrastructure and skills

- some ICT companies may develop to become leading firms capable of exporting goods and services
- all ICT companies and almost every other company depends – directly and indirectly – on ICT infrastructure and skills.

But this is not the only reason why ICTs are critical to shared economic growth and economic development:

- ICTs are needed by government and its partners to deliver better services more cost effectively to more people

- Everybody needs access to ICT tools and to have ICT literacy skills to participate in the knowledge economy. Without a way to acquire these skills, people will never be able to lift themselves into formal employment

The response of the IS&T Directorate

The IS&T Directorate has built its e-government strategy around three basic insights:

- Government, businesses and individuals need broad and equitable *access* to the infrastructure (telecommunications networks) and tools (computer hardware and software)

- As a department, as a local government and as an economy, we need a significant and growing level of *skills* in the form of basic literacy, computer literacy, information literacy and business literacy

- The uptake and penetration (diffusion) of computer use will grow if there is a significant and growing amount of digital *content* (information and the applications – like databases – that deliver it) that is locally relevant available to users.

These insights are reflected in the three legs of our e-government strategy, illustrated here:

Citizens and businesses

IT/ administrative efficiency

Service delivery & communications

Economic and social development

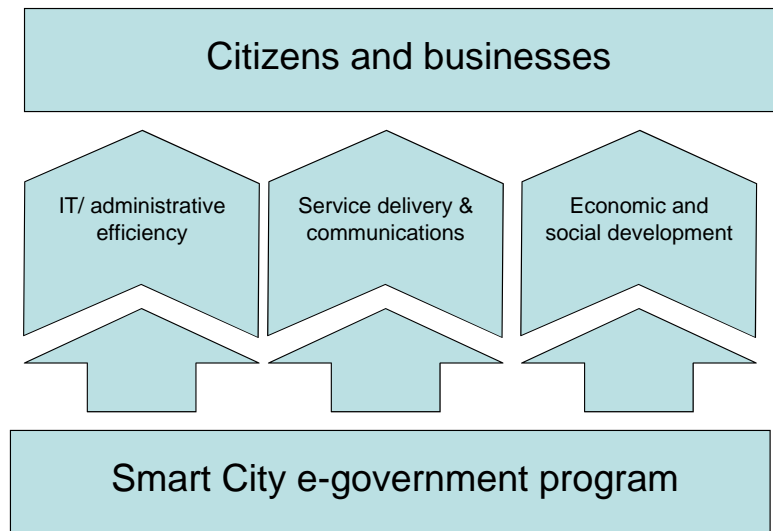Smart City e-government program

Figure 5: The City of Cape Town Smart City e-government program

Activities and projects fall into three categories:

- Using ICTs to improve administrative efficiency and support service delivery by other departments

    Examples: The City's unified wide area network (WAN), ERP system, centralized data centre, standardized desktops, email, the PREHMIS clinic management system and other specialized departmental systems

- Using ICTs to act as channels for service delivery and to improve communications between residents and government

    Examples: capetown.gov.za web site, e-business systems such as the film permit system,

- Using ICTs in the service of economic and social development

    Examples: Smart Cape Access Project, Digital Business Centres, Techno Centre, FOSS Competency Centre, FOSS Forum, Local Content Development Unit, SmartNet Academy, proposed Smart Cape Access Network (SCAN – the City's directly owned network for linking clinics, libraries and other facilities other than administrative centres)

A critique of the 5 Star Strategy

A competitive ICT industry and the availability of ICT telecoms infrastructure are critical enablers of the Developed Economy (star 5).

The critical supporting role of telecommunications infrastructure – together with an enabling business environment – is recognized as an Economic Bridge (star 4).
What is not explicitly recognized is the role that ICTs have to play in:
- Delivering the services and programs represented by the other stars, for example, welfare grants, social services, etc.

- Addressing the prongs of the Economies of the poor (star 3): for example, skills development must involve ICT literacy; business support requires both helping SME to use computers and using ICTs to delivery business support information

In short, by not explicitly recognizing the role of ICTs in economic and human development, the draft Strategy risks relegating ICTs to a side issue, and missing out on opportunities to propose projects and interventions that could have multiple positive impacts on the formal and informal economies.

The 5 Star Strategy makes no explicit case for what Cape Town and its economy wants to be in twenty years time. Given its current position and trends in the world economy, Cape Town has no choice but to stake its claim to being centre for knowledge based industries and a services hub. Tourism growth, servicing the oil and gas industry, film production, growing financial services, even designing and building hi-tech ocean yachts or marketing Western Cape wines internationally boils down to this. What things need to happen to ensure that this becomes a reality?

1   Recommendations

At the strategic level, the Strategy should reflect five things:

- Leadership: Recognising the critical role of ICTs in bringing about shared growth, government departments must face up to their leadership role as a consequence of it being major users of ICTs, its ability to provide Infrastructure, its role in skills development and in the development of a dynamic and growing ICT sector

- E-Government: The City administration must make increasing and better use of ICTs itself. This will not only improve internal efficiency, but the use of ICTs to mediate service delivery and communicate with direct beneficiaries and residents promotes development in general

- Strategic Infrastructure: Ensuring the deployment of infrastructure that fosters a knowledge economy is a priority. Where roads, harbors and railways were the enabling infrastructure of the Industrial Age, communication networks are its equivalent for the Information age

- Human Resource Development: Skills development in the form of computer and information literacy is a necessary activity to underpin the information society and the knowledge economy

- Ensuring the City has a dynamic ICT Sector: A growing and competitive ICT industry is vital to support the ICT needs of government and business. It also is an important employer and direct contributor to the economy. It therefore acts as an absorber of skilled employees, but also as a vital supplier to local industry, where it can drive competitiveness. Given this support, some firms may even become leading global players

The required actions are spelt out in the following table:

Table 1: Required actions for harnessing ICTs to deliver shared growth

Goal	Required Actions
Leadership	- Adopt a clear statement of the critical role of ICTs in economic development and shared growth. - Require all developmental projects to consider their use of ICTs for process efficiency, service delivery and social impact. - Adopt indicators as metrics and use ICT for tracking the success of the Development Strategy. - Create an E-Leaders programme together with the academic institutions to further entrench Cape Town's leadership position with respect to the

Goal	Required Actions
	Information Society.
	• Take a leadership position with respect to implementing the strategies emerging out of the World Summit on the Information Society (WSIS) and the World Summit on Cities and Local Governments in the Information Society. This will further enhance Cape Town's international reputation in this space, and will add to city competitiveness.
E-government	• Mandate and support the Smart City's efforts to work with all other departments to improve service delivery processes, enable better communication between departments and with citizens, and reduce costs so that more of the available resources directly benefit the poor.
	• Recognise and incorporate the Smart City projects into the City of Cape Town Economic and Human Development Strategy.
Strategic Infrastructure	• Recognise and incorporate the Department of Information Technology network infrastructure development projects into the City of Cape Town Economic and Human Development Strategy
	• Build a City-wide broadband network
Human Resource Development	• Develop large numbers of ICT graduates on an annual basis
	• Develop a skilled, educated and computer literate workforce
	• Entrench use of ICT in education as both leaning outcome and teaching mechanism
Dynamic ICT sector	• Promote and support the development of a strong and vibrant ICT sector

At the practical level, the following projects are proposed:

Strategic Infrastructure

Build a broadband telecommunication network that covers the entire metropolitan area. This can be owned by the City, but leased out to VPN license holders and other telecommunications operators to ensure that every home and office has Internet access at the lowest possible cost.

Expand the Smart Cape Access project to bring free to use computers with Internet connectivity to every public facility.

Overhaul Cape Town's public transport systems so that the multitude knowledge workers of tomorrow's economy can get quickly and safely to their place of work and home again around the clock, seven days a week ('24/7').

Build a second international airport to accommodate the visiting tourists, designers, programmers, financers and others who will be coming to Cape Town.

Expand the International Conference Centre to specifically accommodate exhibitions and festivals for the creative industries – film and media, music, fashion, jewelry and accessory design, software design, architecture and industrial design, etc. Set up a unit to attract, run and promote these events.

Embark on an economic corridor that builds out from Cape Town north into the Northern Cape, though to Luanda. Start with road and rail upgrades, and a water pipeline from the Orange River to Cape Town. Use this to create new trade and cultural links with West Africa.

Human Resource Development

Create programs to provide accredited computer literacy training to everyone in Cape Town who wants it.

Find ways to encourage and support the local universities to increase the number of engineering graduates to 1,000 per year.

Sponsor the training of 500 certified open source software engineers a year. Assist them to establish FOSS customization, maintenance and support businesses to supply local and international needs.

Expand the current fledgling FOSS Competency Centre; sponsor developers to participate in global open source development projects and encourage and support them to progress to initiating new projects and local applications.

Industry development

Move beyond key industry cluster support. Put in place concrete programs to attract investment in the key growth potential industries by ensuring that all the critical industry-specific infrastructure and related services is in place. For example:

- Promote the use of the local ICT industry by the Financial Services, BPO/Call centre, Tourism and Government sectors.
- Build a second International Telecommunications landing station.
- Develop an African Space Centre, based on the Houwtek facility.
- Attract global players in the FS, BPO and Tourism sectors.
- Build a fully serviced call centre park.
- Provide incentives for corporate head office relocation to Cape Town.

Seed the establishment of new industries where Cape Town has both a strategic need and a potential consequent competence. For example:

- Develop a strategy for making Cape Town a global hub for Open Source Software skills, by developing local companies and attracting global players in this area.
- Provide incentives for every dwelling to install solar collectors to generate electricity. This will stimulate the local solar power industry (a hi-tech, knowledge intensive industry)
- Provide incentives for water saving and water recycling initiatives. Some of the consequent products or solutions may have application elsewhere in Africa or beyond. Cape Town could become a known centre for efficient water use and associated technology.

Conclusion

All indications are that the diffusion of ICTs positively impacts the economic growth and competitiveness of business, and plays a crucial direct role in successful developmental and poverty alleviation programs. A growing economy creates jobs and the resources needed by government to fight poverty; further, access to ICTs by government institutions and individuals helps to ensure equitable access to the opportunities created in the knowledge economy and that the benefits of economic growth are more equitably shared.

The challenge of shared growth therefore requires government support for the production of ICTs (infrastructure and the ICT industry) and the use of ICTs by all businesses, government institutions and individual members of society. A focus on ICT development and deployment, and their use to build a competitive knowledge economy and inclusive information society, is thus a necessary building block and precursor to all other economic and developmental programs.

The recommended central role of ICTs to the Economic & Human Development Strategy is not much about support for the ICT industry (though a competitive ICT industry is needed to deliver the required tools and skills). The attention that the Strategy needs to give to ICTs is to ensure that the building blocks for Cape Town to play a leading role in the global knowledge economy are put in place, and that as many people as possible are in a position to take advantage of the direct opportunities that this will create. The secondary opportunities though the resulting economic expansion should be significant enough to mop up a major portion of the remaining unemployed.

PLANS THAT ARE BEING COMPLETED FOR APPROVAL AND IMPLEMENTATION DURING THE 2007/08 FINANCIAL YEAR

FIFA 2010 City's Business Plan. Preparations for hosting the FIFA 2010 World Cup in accordance with FIFA's requirements and the City's developmental objectives (Objective 1.11)
Stadium Operator Management Plan Lease agreement for long term operator to manage stadium
Planned infrastructure maintenance plan iro Electricity, Sewerage, Water and Roads & Stormwater, Solid Waste disposal
Integrated Human Development Plan
Informal Settlement Upgrade plan
Single Transport Authority Plan
Quality Management Programme/ Plan
Project Plan for Integrated Spatial Information System to link GIS, LIS and SAP
Community satisfaction Survey (Score measured in terms of the Likert scale)
Operations Integration Plan (Including Administrative Support Model)
Planned infrastructure maintenance plan iro Electricity, Sewerage, Water and Roads & Stormwater, Solid Waste disposal
Anti-corruption strategy (*Internal Audit*)
Municipal Entity Plans (Louise Muller)
Comprehensive HR development strategy
Staff skills development plan (WPSP)
Disabled and gender strategies

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BACK COVER:

Same as 2005 report (few changes marked up on hard copy)

xxxi The Social Package is elsewhere defined as: (a) bulk and business infrastructure subsidies (b) capital subsidies and grants for assets for the poor (c) social services infrastructure (d) subsidised access to basic services (indigent policies) (e) welfare grants.

xxxii R Harris 'Information and Communication Technologies for Poverty Alleviation' UNDP-APDIP 2004

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xxxix ZEF, Information and Communication Technologies for Development, Centre for Development Research, University of Bonn, 2002, quoted in Roger W Harris 'Information and Communication Technologies for Poverty Alleviation' e-Primers for the Information Society, UNDD-APDIP 2004

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There is an implicit assumption by UNCTAD that productivity growth leads to economic growth, which then leads to economic development. This may not necessarily be the case. First, economic growth can occur without economic development if the incremental profits accrue to a small number of people. It is this problem that the Shared Growth strategy seeks to address.

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l 'Contribution of ICT to economic Growth' National Office of the Information Economy (Australia) December 2002

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[lvi] R Harris 'Information and Communication Technologies for Poverty Alleviation' UNDP-APDIP 2004

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