



**City of Cape Town Wastewater  
Treatment Section 78(3)  
Assessment**

**Tender no: 102C/2008/09**

**Draft Final Report**

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## 1. INTRODUCTION

### 1.1 PROJECT SCOPE

In accordance with the Municipal Systems Act (“MSA”) Section 78 requirements, the City of Cape Town needed to decide at the Section 78(2) juncture whether to opt for an internal service delivery mechanism or to explore the potential of an external mechanism before making a final decision on an appropriate service delivery mechanism at the Zandvliet Wastewater Treatment Plant (WWTP), the new Fisantekraal WWTP and the Thermal sludge drying plant at the Cape Flats WWTP. There were sufficient grounds for Council to explore the opportunity of providing the service through an external mechanism.

It was obvious that a proper decision could only be taken if the complete choice set is available, and it was therefore proposed that the external option be investigated.

The purpose of the MSA Section 78 investigation is to prepare and collate the information that will enable Council to decide on the most appropriate Wastewater Management service delivery mechanism (“WWMM”).

**The scope of the Project covers the City of Cape Town’s three Wastewater Treatment Works at:**

- **Zandvliet Wastewater Treatment works;**
- **Cape Flats Thermal sludge drying and pelletisation plant; and**
- **New Fisantekraal Wastewater Treatment works.**

The assessment will include identification of possible areas for improvement in the Wastewater Branch of which the three wastewater treatment plants, mentioned above, form an integral part.

The **Zandvliet Wastewater Treatment Works** had been operated and maintained on a private contract basis since its construction by the Provincial Administration Western Cape in ± 1988. While this private contract has expired, authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a section 78 investigation has been concluded and the outcome put in place.

The Zandvliet Works consists of an activated sludge plant which has recently been extended to a total capacity of 77 MI/day. The process configuration consists of a conventional 59MI/d activated sludge (CAS) plant together with a separate recently constructed 18MI/d membrane bioreactor (MBR) plant. Mechanical sludge dewatering via

the belt presses forms part of the treatment process. Due to the significant development in the catchment area, this plant is likely to be further extended in the next five years or so.

The **Cape Flats Wastewater Treatment Plant's** private contract has expired and authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a Section 78 investigation has been concluded and the outcome put in place.

The sludge drying facility enables thickened sludge to be heat treated to form a pelletised product. The advantage of this process is that it reduces the volume of sludge to be disposed of and serves to create a highly user friendly product which has various beneficial end uses.

The capacity of the thermal drying plant is sufficient to allow sludge to be "imported" from other wastewater treatment works, hence optimising the operation of the facility and the regional management of sludge.

The **Fisantekraal Wastewater Treatment Works** will be commissioned around 2010/11 and further capacity extensions are expected in future as development of the region takes place. The 24 MI/day plant will comprise a modern activated sludge treatment process inclusive of mechanical sludge dewatering and odour control mechanisms. It is anticipated that there will be significant opportunity for final effluent and solids by-product to be used on surrounding farm lands as irrigation water and soil conditioner.

## **1.2 NOTICE TO THE LOCAL COMMUNITY**

The Section 78(3) phase of the project requires that the City of Cape Town prepare a notice to the local community advising that the municipality intends to explore external options for service delivery.

The City of Cape Town issued a public notice in the three official languages in terms of Section 78(3)(A) of the Local Government Municipal Systems Act 2000 (Act 32 of 2000). The Notice reads as follows:

**NOTICE IN TERMS OF SECTION 78(3)(A) OF THE LOCAL GOVERNMENT MUNICIPAL SYSTEMS ACT 2000 (ACT 32 OF 2000)**

The City of Cape Town hereby gives notice of its intention to explore alternative service delivery mechanisms for the provision of wastewater management services at the Zandvliet Wastewater Treatment Plant (WWTP), the new Fisantekraal WWTP and the thermal sludge drying plant at the Cape Flats WWTP. In doing so, it will solicit the views of the public, organised labour, as well as that of the work force, as required by the Municipal Systems Act.

To determine the most appropriate mechanisms for the future provision of wastewater management services at these sites, the City's Wastewater Department will undertake an extensive assessment process to ensure compliance with the requirements of the Municipal Systems Act, 2000 (Act 32 of 2000). This will be done in the form of investigations, assessments and public participation which will lead to a Section 78(3) report with recommendations to Council.

**Further enquiries can be directed to:**

**Kevin Samson**  
**Manager: Wastewater**  
**Tel: . 021 487 2606**  
**Fax: 021 487 9520**  
**E-mail: Kevin.samson@capetown.gov.za**  
**CITY OF CAPE TOWN**  
**ACHMAT EBRAHIM**  
**CITY MANAGER**

Responses to the notice have been considered in this report and these notices will be collated and included as an Annexure to this report.

### 1.3 OUR APPROACH

#### a) Preliminary external option identification

All possible options permitted by Section 78(3) will be considered and such options will take cognisance of the possible roles which the City of Cape Town's Wastewater Service may play in their implementation and beyond both in terms of service authority and service provider.

For the analysis required in the MSA Section 78(3)(b) the municipality (with the assistance of the Service Provider) is required to identify, for the sake of comparison, one or more examples of each of the basic external options (in terms of the MSA Section 76(b)), which are the most likely options to meet future Wastewater Management service needs.

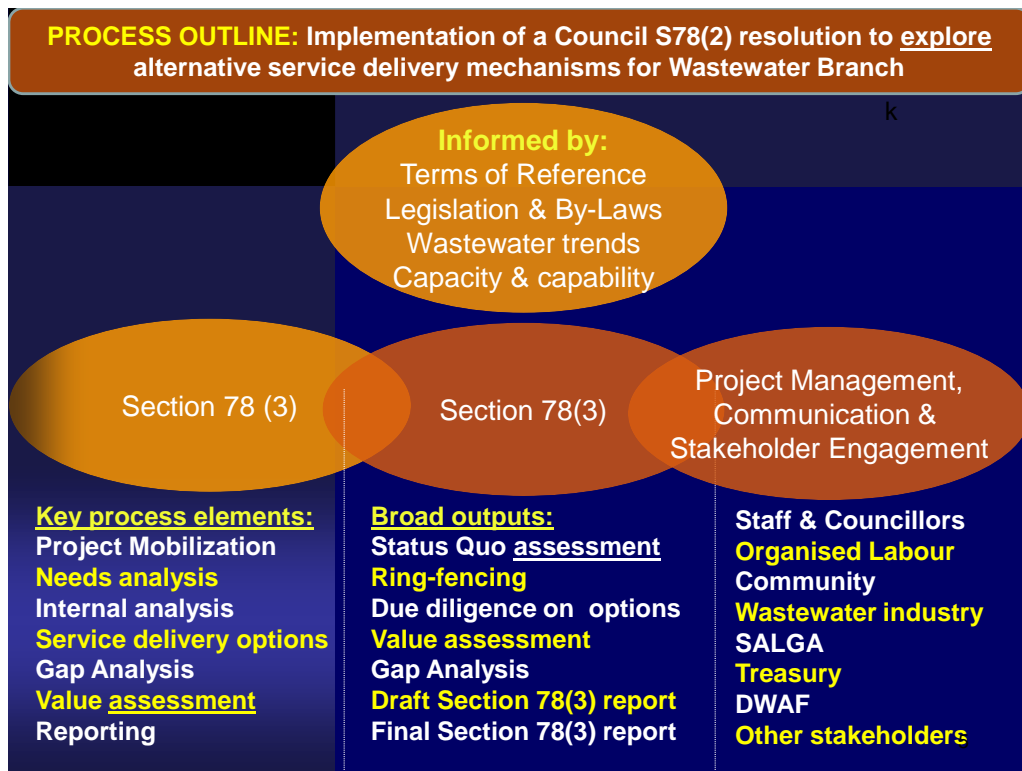
#### b) Feasibility Study (MSA Section 78(3)(c) & MFMA 120

This phase requires the municipality (with the assistance of the Service Provider) to determine the direct and indirect costs and benefits of external option(s) identified above:

- To reflect likely better (or worse) risk management by the external mechanism, because of:
  - output focus

- economies of scale
- inventive use of assets
- innovative financial structuring
- managerial expertise
- To reflect the fact that the external mechanism will rely on its own credit for financing ("project finance").
- To reflect any taxes or fees that might be paid by the external mechanism, if Council so decides to go that route.
- Undertake a Preliminary Affordability Analysis

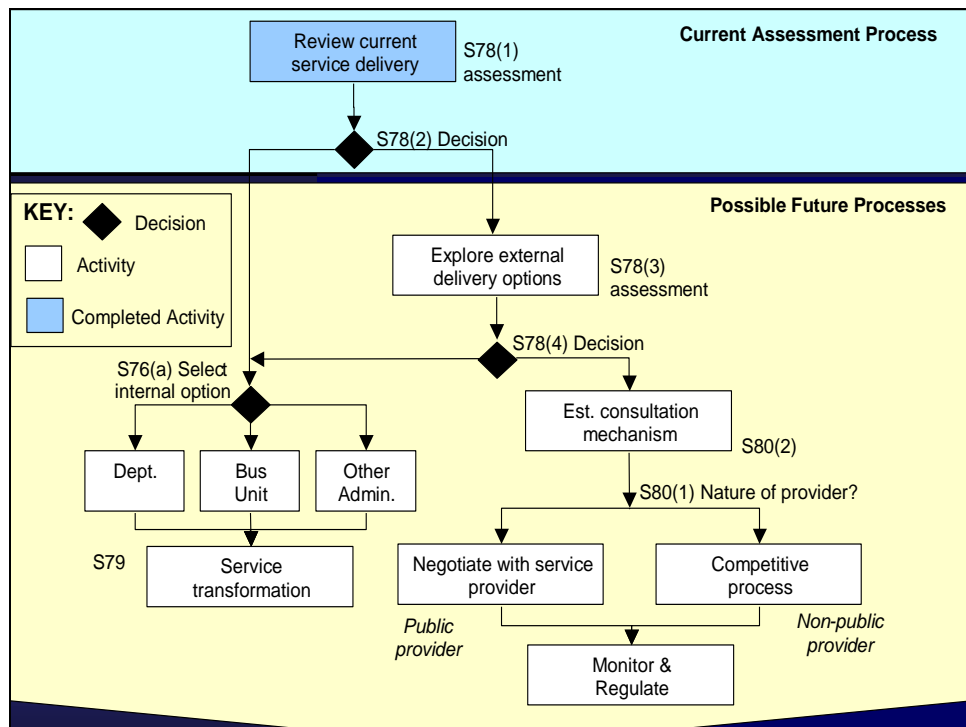
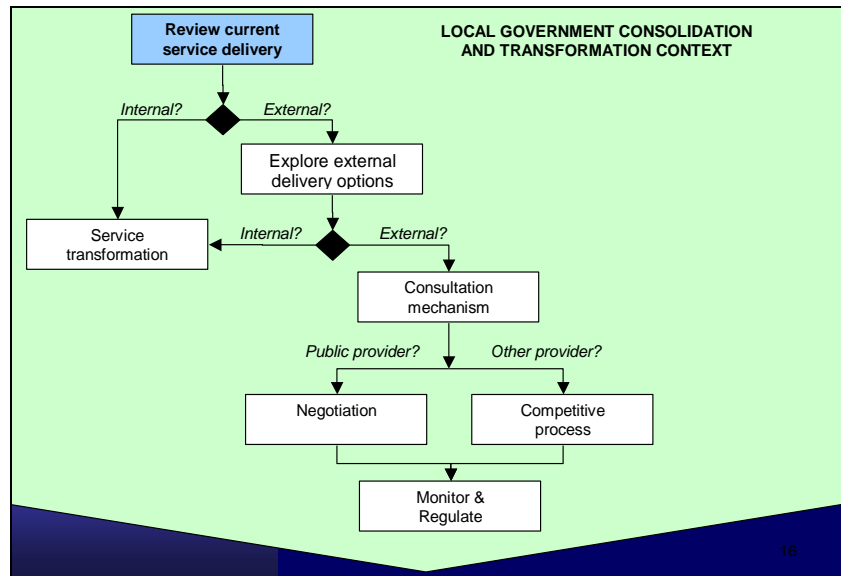
The feasibility study will be informed by the Terms of Reference and other factors as illustrated below:



**c) Section 78 Process**

The City of Cape Town’s Wastewater Service requires a Section 78(3) assessment to be undertaken in terms of the Local Government: Municipal Systems Act, Act 32 of 2000 as amended by the Local Government: Municipal Systems Amendment Act, Act 44 of 2003. This project must assist the City of Cape Town’s Council make an informed decision as to the most appropriate mechanism for providing the Wastewater service.

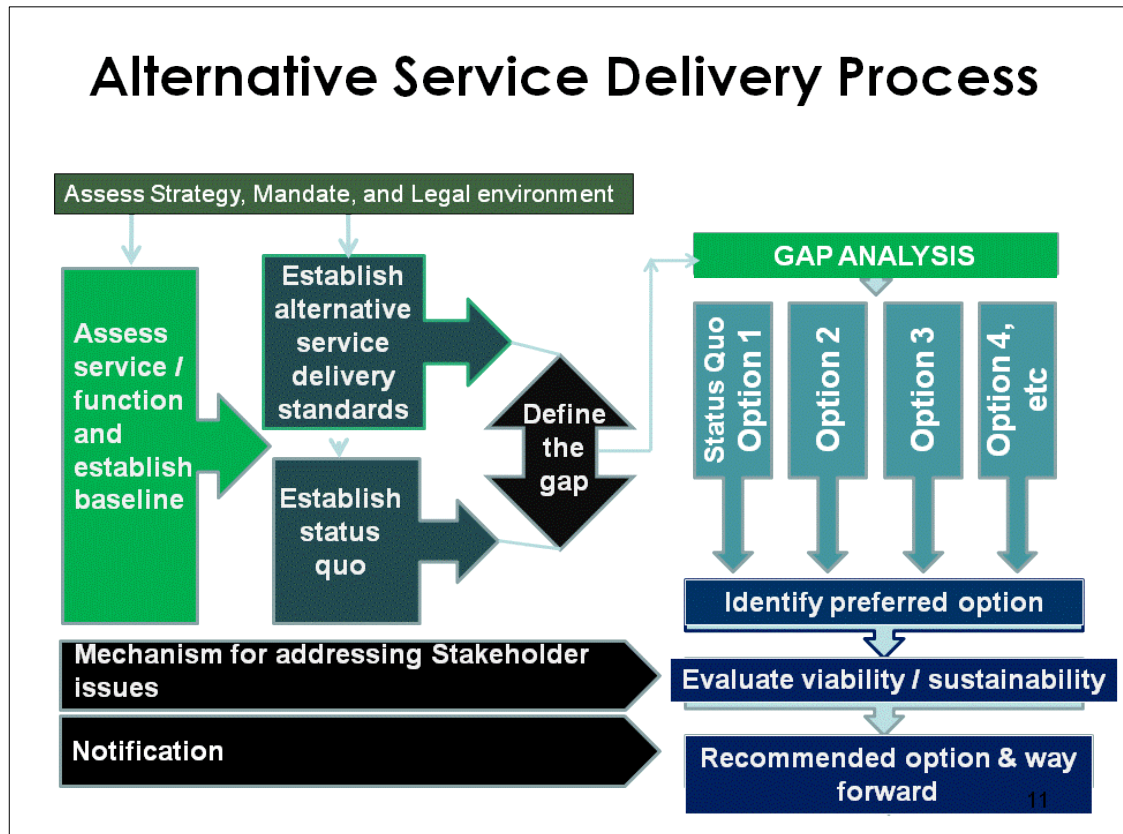
We illustrate below the local government consolidation and transformation context and the assessment process in terms of Section 78



The Section 78(1) phase above was successfully completed and the Council resolved, in accordance with MSA Section 78(2), that the external mechanism be explored.

**d) Alternative Service Delivery Approach**


The Alternative Service Delivery (“ASD”) project approach is illustrated in the diagram below:



The ASD Project process will be undertaken within an overarching Change Management Programme as illustrated below.

**e) Review of all external mechanisms**

The Municipal Systems Act Section 76(b) makes reference to the internal and external options for consideration. These options are as follows:



## Section 76

- Section 76 prescribes the various service delivery mechanisms a municipality may consider. i.e.
  - Internal Department (S76(a)(i))
  - Internal BU (S76(a)(ii)) or “Other”
  - External Mechanisms (S76(b))
    - » A Municipal Entity;
    - » Another municipality;
    - » An Organ of State, including :-
    - » Water Services Authority
    - » Community Based Organisation or other NGO; or
    - » Any Other institution, entity or person legally competent to operate a business activity

The above options, described in Section 76(b) of the Municipal Systems Act, will each be assessed in order to meet the requirements of Section 78(3) of the said Act.

#### f) Definition of Options

The above options are not defined in the Municipal Systems Act and are not defined by law. However, in order to provide clarity as to the difference between the options, a definition is provided of the less obvious options referred to in the MSA:

a) An Internal Department and an Internal Business Unit

*A Business Unit usually refers to a division or a specific market segment of an organization, while a Department can be a sub-unit of that division. It really depends on the size and on the level of autonomy within the parent organization.*

b) A Municipal Entity

*A company, co-operative, trust, fund or any other corporate entity established in terms of any applicable national or provincial legislation and which operates under the ownership control of one or more municipalities (as defined by the MFMA)*

c) An Organ of State

*An “Organ of State” means “an organ of state functioning within the sphere of government as defined in section 239 of the Constitution”;*

d) Any Other Institution; Entity or Person legally competent to operate a business activity (e.g. a Service Delivery Agreement)

*A contract between a municipality and a private party, in which the private party assumes substantial financial, technical and operational risk in the design, financing, building, and operation of a project.*

**g) Assessment of the Short-listed Options**

The result of this assessment will lead to the Municipal Systems Act options being narrowed down to a very small number of eligible options, which can then be further analysed in terms of the most feasible contract types and against a more specific set of factors.

We will narrow down the options to a maximum of three to allow Council to make an informed comparison.

**h) Institutional, Legal & Regulatory issues**

For each of the service systems selected by Council for consideration of external delivery arrangements, any particular regulatory, institutional and risk related matters, will be considered to assess the impact of the various options on the long-term ability to provide Wastewater Management services.

The investigation will include issues to the MFMA and MSA pertaining to Municipal Entities, which is one of the alternative service delivery options as defined in Section 76(b) of the MSA. The MSA and the Municipal Finance Management Act (“MFMA”) both lay down requirements related to the investigation of a Municipal Entity (“ME”) and it is therefore necessary to confirm how these requirements align.

## 2. CITY OF CAPE TOWN LEGISLATIVE FRAMEWORK

### 2.1 STATUTORY FRAMEWORK

The purpose of this part of the Report is to provide an overview of the statutory framework within which Wastewater Management service is currently undertaken as well as to provide an indication of current thinking regarding the South African Wastewater management industry

The current statutory framework governing the Wastewater Management industry may thus be classified into two broad categories:

- 2.2.1 Policy and strategy instruments which seek to address various aspects of the proposed restructuring of the Wastewater Management industry; and
- 2.2.2 Existing legislation and regulations which govern Wastewater Management services

### 2.2 POLICY AND LEGISLATION

There is no national legislation focusing specifically on wastewater Management. In the absence of such legislation, a variety of national Acts and policy documents must be analysed to understand the responsibilities of Local and District Municipalities for wastewater Management and how required initiatives should fit into the broader national strategy for sustainable development.

In general, national government is responsible for setting policy and minimum standards. Provincial government may adopt regulations that are stricter than the national standards and is responsible for monitoring and ensuring that local municipalities adopt wastewater Management strategies and implement them. Local Government may adopt and enforce local by-laws that augment national and provincial requirements and must act within the policy framework established by national government. In addition, national policy identifies wastewater Management as a cross cutting issue that must be taken into consideration when economic and social development decisions are made.

The relevant Water Legislations are listed in the table below:

<b>Relevant South African Water Legislation</b>	
<b>1996 - South African Constitution, Section 27</b>	<ol style="list-style-type: none"><li>1. "Everyone has the right to have access to... sufficient food and water...</li><li>2. The state must take reasonable legislative and other measures, within its available resources, to achieve the</li></ol>

	progressive realization of each of these rights."
<b>1997 - Water Services Act</b>	Provides rights of access to basic water services for all citizens. It assists municipalities to undertake their role as water services authorities and to look after the interests of the consumer.
<b>1998 - National Water Act</b>	Legislates the way in which the water resource is protected, used, developed, conserved, managed and controlled. It also governs how a municipality may return effluent and other wastewater back to the water resource.
<b>2001 - Policy on Free Water</b>	Establishes the provision of 6 kilolitres of free water per household per month.
<b>2003 - Strategic Framework for Water Services</b>	Aimed to reduce the backlog on basic service provision. It also introduced the concept of a 'water ladder' which aims to ensure that there is a progression from access to basic water to higher levels.
<b>2004 - National Water Resources Strategy</b>	Provides the framework within which water resources throughout the country must be protected, used, developed, conserved, managed and controlled.

The Republic of South Africa has **recognised water as a fundamental human right** in the Bill of Rights of the Constitution of South Africa, 1996. The Constitution assigned local governments the responsibility of providing access to water and sanitation services to all. A range of municipal legislation has been developed and implemented since 1994 to transform the local government. However, in the absence of fully developed local government structures, the Department of Water Affairs and Forestry (DWAF) was mandated to ensure that all South Africans have equitable access to water and sanitation services where local government was unable to carry out this mandate.

Targets were set to eliminate the backlog over a ten year period; to provide each individual with at least 25 litres of water per day within 200 metres of their home; and, to provide each household with basic sanitation in the form of at least a Ventilated Improved Pit (VIP) latrine.

The country has adopted a **Vision for Water, Life and the Environment in the 21st Century**. This envisages a South Africa where there is equitable and sustainable planning, use, development and management of water resources for poverty alleviation, local and national socio-economic development, regional co-operation and integration, and the environment.

Implementation of the right to water adopted in the South African Constitution, has led to the adoption of three fundamental principles to guide water management. These are to achieve:

**a) Equitable access to water**

**Sustainable use of water** by making progressive adjustments to water use with the objective of striking a balance between water availability and legitimate water requirements, and by implementing measures to protect water resources

**Efficient and effective water use** for optimum social and economic benefit

The Government regards water as an indivisible national asset. The Government commits itself to acting as the custodian of the nation's water resources and to exercising its powers in this regard as a public trust. It has adopted an **integrated water resources management model** in order to achieve these objectives.

Water required to meet basic human needs and to maintain environmental sustainability is guaranteed as a right, whilst water use for all other purposes is subject to a system of administrative authorisations.

The decentralised regional and local institutions are being established with appropriate community, racial and gender representation to enable all interested persons to participate. Implementation of the policy is fundamentally changing the ways in which South Africa's water resources are managed.

The Primary source of funding for water and sanitation is local taxes, supplemented by national grants. Municipal Infrastructure Grants cover basic services for the poor and Capacity Building Grants assist with the development of Municipal infrastructure and capacity.

**b) Free Basic Water Policy**

Considerable progress was made in addressing the levels of under-servicing during the period 1994-2001, but problems remained. In 2001, the South African government established its Free Basic Water policy to ensure equitable access to water. The policy stipulates that households are entitled up to 6,000 litres of clean water every month at no cost. Those who use more than the stipulated volume must pay for the additional amounts. The calculation of free water is based on an assumed household unit containing eight members, providing each person with 25 litres of water per day. This falls in line with the WHO's recommendation that each individual needs a minimum of 20 - 50 litres of water per day for personal use.

The South African Department of Water Affairs and Forestry reported that by March 2007, 75.81% of the total population was served by access to Free Basic Water, and 68.86% of the poor population was served.

### c) Sanitation in South Africa

In 2001, there was a national backlog of persons without access to adequate sanitation facilities estimated to be 18 million people or 3 million households. The majority of persons falling in this category lived in rural areas, peri-urban areas and informal settlement areas. The Government estimated that up 26% of urban households and 76% of rural households had inadequate sanitation.

In its **White Paper on Basic Household Sanitation** (Department for Water Affairs and Forestry, 2001) the Government re-affirmed its commitment to ensuring that all citizens have access to basic sanitation by 2010. The Programme focuses on the eradication of the sanitation backlog in the rural, peri-urban and informal settlement areas by the year 2010. In addition, eradication of the bucket system (currently estimated at about 428,000 households) is to be achieved by 2007.

**Community participation** is identified as a key requirement for the success of the implementation programme. Projects are to be demand driven by the community, as demonstrated by the community's willingness to assist in project implementation. Where possible, projects are to be implemented without the use of external contractors to facilitate the upliftment of the local economic situation. Training is to be provided to members of the local community to construct the facilities. Sufficient information is to be provided to the community to enable them to make an informed decision with regard to the type of technology implemented.

## 2.3 NATIONAL LEGISLATION

The following current national legislation focus on the specific responsibilities of local government for wastewater:

- The Constitution: Section 24 compels Government to pass reasonable legislation to protect the environment and prevent pollution and guarantees an environment that is not harmful to their health;
- The Municipal Structures Act (No. 117 of 1998) states that local government is responsible for municipal services
- Municipal Systems Act (No. 32 of 200) requires all municipalities to undertake integrated Strategic Planning processes and produce an Integrated Strategic Plan.
- Municipal Finance Management Act requires municipalities to shift their budgeting processes from an administrative approach that in the past focused on rules not outcomes to a performance-based system focused on outputs, outcomes, and measurable objectives, to enable municipalities to maximize their capacity for service delivery
- Division of functions and powers between district and local municipalities: Section 84(1) A district municipality has the following functions and powers:

- Integrated development planning for the district municipality as a whole including a framework for integrated development plans for the local municipalities within the area of the district municipality
- Bulk supply of water that affects a significant proportion of municipalities in the district.
- Bulk sewage purification works and main sewage disposal that affects a significant proportion of municipalities in the district.

## **2.4 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, ACT 108 OF 1996**

The Constitution is the supreme law of the Republic of South Africa and any law, which is inconsistent with it, is invalid. It is therefore important to consider the provisions of the Constitution when considering any legislation or the regulatory framework as a whole. Although the Constitution addresses a number of aspects that are directly or indirectly relevant to the provision of municipal services, for purposes of this Report the key provisions are to be found in Chapter 7 of the Constitution.

Chapter 7 of the Constitution deals with local government and of particular relevance here are sections 151 and 156 read with Part B of Schedule 4 and Part B of Schedule 5.

In terms of section 151 the national or a provincial government may not compromise or impede a municipality's ability or right to exercise its powers or to perform its functions.

In terms of section 156 every municipality has executive authority in respect of, and the right to administer, the local government matters listed in Part B of Schedule 4 and Part B of Schedule 5, as well as any other matter assigned to municipalities in terms of national or provincial legislation. In addition to such executive authority, municipalities also enjoy legislative authority in respect of the matters referred to above and may make and administer by-laws for the effective administration of such matters. The executive and legislative authority of a municipality vests in its municipal council which makes decisions concerning the exercise of all powers and the performance of all functions of the municipality.

The importance of the foregoing is that the Constitution effectively vests the service authority and responsibility to provide Wastewater Treatment service with municipalities. Hence, municipalities will bear the legislative and constitutional responsibility for the provision of Wastewater Treatment even if it outsources that service to an external service provider. Therefore, for present purposes, and in the absence of legislative amendments or other legal processes, the Municipality will retain both its executive and legislative authority and responsibility as regards the provision of Wastewater Treatment service within its geographical area of jurisdiction despite the introduction of an external service provider be it in the form of a municipal or other entity. However, as will be seen from the discussion of

the Local Government: Municipal Systems Act, the Act provides various mechanisms which will enable the Municipality to ensure that it discharges its constitutional and legislative mandates and responsibilities whilst still participating in the restructuring of the Wastewater Treatment service. Where an external service delivery mechanism is selected the most important factor of these mechanisms is the conclusion of a comprehensive multifaceted service delivery agreement. This mechanism may be complimented by other mechanisms such as statutory monitoring and reporting obligations as well as through the municipality's rights as a stakeholder.

## **2.5 LOCAL GOVERNMENT LEGISLATION**

### **2.5.1 Local Government: Municipal Systems Act as amended by the Local Government: Municipal Systems Amendment Act**

**2.5.1.1** Section 74(1) of the Local Government: Municipal Systems Act 32 of 2000, as amended by the Local Government: Municipal Systems Act 44 of 2003 ("MSA"), provides that a municipal council must adopt and implement a tariff policy on the levying of fees for municipal services provided by the municipality itself or by way of service delivery agreement. "Municipal services" is defined in the MSA to include any service that a municipality provides (or may provide) in terms of its powers and functions irrespective of whether such services is provided by the municipality through an internal mechanism or by engaging an external mechanism and irrespective of whether or not fees, charges or tariffs are levied in respect of such service or not.

**2.5.1.2** Section 74(2) of the MSA lists numerous principles that have to be reflected in the tariff policy, namely –

- (a) users of municipal services should be treated equitably in the application of tariffs;
- (b) the amount individual users pay for services should generally be in proportion to their uses of that service;
- (c) poor households must have access to at least basic services through-
  - i) tariffs that cover only operating and maintenance costs;
  - ii) special tariffs or life line tariffs for low levels of use or consumption or services or for basic levels of services; or
  - iii) any other direct or indirect method of subsidisation of tariffs for poor households;
- (d) tariffs must reflect the costs reasonably associated with the rendering of the services;

- (e) tariffs must be set at levels that facilitate the financial sustainability of the services, taking into account subsidisation from sources other than the service concerned;
- (f) provisions may be made in appropriate circumstances for a surcharge on the tariff for a service;
- (g) provisions may be made for the promotion of local economic development through special tariffs for categories of commercial and industrial users;
- (h) the economical, efficient and effective use of resources, the recycling of waste and other appropriate environmental objectives must be encouraged;
- (i) the extent of subsidisation of tariffs for poor households and other categories of users should be fully disclosed.

**2.5.1.3** The tariff policy is implemented and enforced by the adoption of by-laws by the municipal council (section 75 of the MSA). In contrast with the aforementioned provisions that refer specifically to the municipal council, section 75A provides the municipality (which may be a wider concept and may include political structures other than the municipal council) with a general power to levy and recover fees or tariffs in respect of any function or service of the municipality.

**2.5.1.4** Section 86A (Regulations and guidelines regarding municipal services) explains that the Minister may make regulations or issue guidelines to provide for or regulate *inter alia* the following matters:

- a. municipal tariff policy;
- b. limits on tariff increases;
- c. standard draft service delivery agreements;
- d. any other matter that would facilitate the effective and efficient provision of municipal services.

**2.5.1.6** From the above it is clear that although the Minister may make regulations which could be detrimental to the operation of WWMM, the opportunity also exists that with proper buy-in from the Minister, numerous doors could be opened given the vast powers of the Minister.

**2.5.1.7** Section 86B makes provision for the following kinds of municipal entities:

- a private company established by one or more municipalities or in which one or more municipalities have acquired or hold an interest;

- a service utility established by a municipality; and
- a multi-jurisdictional service utility.

**2.5.1.8** Section 86C(1) explains that a municipality may, subject to subsection (2):

- Establish or participate in the establishment of a private company; or
- Acquire or hold an interest in a private company.

Section 86C(2) explains that a municipality may either acquire or hold full ownership of a private company, or acquire or hold a lesser interest in a private company. A municipality may acquire or hold such a lesser interest in a private company only if all the other interests are held by:

- another municipality or municipalities;
- a national or provincial organ of state or organs of state; or
- any combinations of (i) or (ii) above.

A municipality may, despite the above, acquire or hold an interest in a private company in which an investor other than a municipality or a national or provincial organ of state has an interest, but only if effective control in the private company vests in that municipality, another municipality or both of them collectively.

**2.5.1.9** Such private company referred to in section 86C(1) is a municipal entity if a municipality, or two or more municipalities collectively, have effective control of the private company; or is a public entity to which the Public Finance Management Act No. 1 of 1999 applies if ownership control in the company (within the meaning of that Act) is held by a national or provincial organ of state.

**2.5.1.10** A private company which is a municipal entity must restrict its activities to the purpose for which it is used by its parent municipality and has no competence to perform any activity which falls outside the functions and powers of its parent municipality.

**2.5.1.11** Conditions precedent for co-owning private companies are *inter alia* that each of the municipalities must consider cash flow projections of the company's proposed operations for at least three financial years and must comply with section 86E whereby a municipality may establish a private company only-

- a. for the purposes of utilising the company as a mechanism to assist it in the performance of any of its functions or powers referred to in section 8;
- b. if there is a need to perform that function to achieve the strategic objectives of the municipality more efficiently; and
- c. the company would benefit the local community.

**2.5.1.12** A municipality may transfer ownership or dispose of a wholly owned private company, subject to the MFMA; or an interest in a private company, subject to section 14 of the MFMA (if such transfer/disposal would not result in an infringement of section 86C(2) by another municipality holding an interest in the company).

**2.5.1.13** Service utilities are established by a municipality passing a by-law, such by-law to confer the powers and impose duties on the service utility which are necessary to attain the purpose for which the service utility is established. This kind of municipal entity is discussed in more detail in the analysis of the service delivery options.

**2.5.1.14** Multi-jurisdictional service utilities are established by written agreement (containing the rights, obligations and responsibilities of the parent municipalities) between two or more municipalities to perform any function or power envisaged by section 8 in their municipal areas or in designated parts of their municipal areas. This kind of municipal entity is discussed in more detail in the analysis of the service delivery options. Both service utilities and multi-jurisdictional service utilities must restrict their activities to the object for which they were established.

### **3. ALIGNMENT OF MSA SECTION 78(3) AND MFMA SECTION 84**

#### **3.1 BACKGROUND ON REQUIREMENTS IN RESPECTIVE ACTS**

The MSA requires that Municipal Services be provided equitably, efficiently and sustainably (Section 73). As indicated earlier, this may be achieved through a range of internal and external service delivery mechanisms (Section 76), the selection of which is governed by the process prescribed in Section 78. As indicated above, in the case of the WWTP's the Section 78 investigation has proceeded to the point where the Municipality has approved exploring the mechanism of providing the services for the Zandvliet Wastewater Treatment Plant (WWTP), the new Fisantekraal WWTP and the Thermal sludge drying plant at the Cape Flats WWTP through an external mechanism. In this regard Section 78(3) prescribes the process for and the matters which must be considered when investigating external mechanisms.

One of the external service delivery mechanisms a Municipality may consider is a Municipal Entity (ME). An ME may take the form of a private company established by one or more municipalities or in which one or more municipalities has acquired or holds an interest; a service utility established by a single municipality; or a multi-jurisdictional service utility established by two or more municipalities (refer Section 86).

The MFMA requires a municipality to investigate the implications of selecting an ME (Section 84). Section 84 prescribes how the impact of a possible ME should be assessed and provides for wide ranging stakeholder consultation.

#### **3.2 ISSUES RAISED BY THE ACTS**

The MSA and the MFMA both lay down requirements related to the investigation of an ME and it is therefore necessary to confirm how these requirements align.

##### **3.2.1 Do Section 78(3) and Section 84 overlap?**

A review of the two sections reveals that they tend to overlap in the following respect:

Section 78(3)(c)(v) broadly requires an assessment of the projected impact of a given external service delivery mechanism on municipal staff, assets and liabilities. Section 84 elaborates on this topic by requiring a similar but more extensive assessment of specific possible impacts on staff (Section 84(1)(b)(i): likely number of staff to be transferred; Section 84(1)(b)(ii): possible staff redundancies; Section 84(1)(b)(iii): possible cost of retrenchment or retention of redundant staff; Section 84(1)(b)(iv)), on assets (Section 84(1)(b)(iv): assets to be transferred to the entity; Section 84(1)(b)(v): any assets that may become obsolete) and liabilities (Section

84(1)(b)(vii): liabilities to be ceded to the entity; Section 84(1)(b)(vi): any debt the municipality would retain).

### 3.2.2 What sequence to follow?

Section 84 needs to be complied with when a municipality is considering the establishment of, or participation in an ME (Section 84(1)). Section 84 must therefore be complied with prior to a municipality taking a decision to establish an ME .

Broadly, the process which follows a decision by a municipality to investigate the possibility of providing a municipal service through an external mechanism in terms of Section 78(2) of the MSA (including possibly an ME) would be as follows:

Review and assess possible external service delivery options in terms of MSA Section 78(3) read with Section 76 including carrying-out an impact assessment and feasibility study i.t.o. MSA Section 78(3)

- Carry out impact assessments i.t.o. MFMA S84(1)
- Give notifications and obtain inputs i.t.o. Section 84(2)
- Make a Section 78(4) decision on an appropriate internal or external service delivery mechanism for the municipal service in question.

### 3.2.3 Can compliance occur simultaneously?

Even though some of the required assessments and notifications under Sections 78 and 84 overlap, they should be responded to separately in terms of the relevant sections of the relevant Acts. However, the requirements of both Sections can be complied with simultaneously, for example by a single notice referring to the relevant sections under each Act.

## 3.3 OTHER IMPORTANT PROVISIONS OF THE MSA

The following sections should also be taken into account in selecting a preferred option:

- ### 3.3.1
- Section 86D(2) provides that a private company which is a municipal entity must restrict its activities to the purpose for which it is used by its parent municipality in terms of section 86E(1)(a) namely for the purpose of utilising the company as a mechanism to assist in the performance of any of the functions or powers conferred upon such municipality in terms of the Constitution. It is our view that this section does not detract from otherwise impede the participation of the Municipality in the establishment of WWMM entity.

- 3.3.2 Section 93A provides that the parent municipality of a municipal entity must exercise any shareholder, statutory, contractual or other rights and powers it may have in respect of such municipal entity to ensure that both the municipality and the municipal entity comply with the MSA, MFMA, or any other applicable legislation and that the municipal entity is managed responsibly and transparently and meets its statutory and contractual obligations.
- 3.3.3 Section 93B provides inter alia that a parent municipality of a municipal entity may liquidate and disestablish the municipal entity where following an annual performance review the performance of such municipal entity is unsatisfactory, the entity continues to experience serious or persistent financial problems or the municipality has terminated its service delivery or other agreement with the municipal entity.
- 3.3.4 In terms of Section 93K a municipal entity may establish or participate in the establishment of a company or any other corporate body including a trust or hold or acquire an interest in a company or any other corporate body including a trust except a fund for the benefit of employees of a municipal entity in terms of a law regulating pensions or medical aid schemes.

#### **3.4 SUMMARY OF ASSESSMENT OF MSA AND MFMA RELATING TO ME**

The approach followed in this Report is to acknowledge that there are indeed areas of overlap between the requirements of the MSA and those of the MFMA.

Rather than treating the two Acts sequentially, the requirements of each Act have been dealt with in this report in a sequential manner so as to ensure that similar aspects are dealt with in proximity to each other albeit separately thus avoiding unnecessary repetition. However, in each case a finding is made in terms of a specific section of one or the other Act.

It should further be noted that the MFMA Section 84 applies only to ME's and the Section 84 findings are therefore made only with respect to the possible establishment of an ME by the Municipality.

## **4. IDENTIFICATION OF OPTIONS FOR SERVICE DELIVERY**

### **4.1 THE PURPOSE OF THIS SECTION**

The purpose of this section of the Report is to enable the Municipality to evaluate the various internal and external service delivery options available to it, in terms of the Municipal Systems Act, and in order that it may eliminate those options which are not suitable thereby allowing the Municipality to focus solely upon one or more preferred options.

### **4.2 SERVICE DELIVERY OPTIONS**

The starting point for this part of the Report is Section 76 of the MSA. The Section 76 sets out the various service delivery mechanisms which are available to municipalities. These service delivery mechanisms or options are categorised into internal and external mechanisms.

#### **4.2.1 Internal mechanisms include:**

**4.2.1.1** the establishment of a department or other administrative unit within a municipality's administration;

**4.2.1.2** the establishment of a business unit devised by the municipality, provided that such business unit operates within the municipality's administration and under the control of its municipal council in accordance with operational and performance criteria determined by such municipal council; or

**4.2.1.3** the establishment of any other component of its administration.

#### **4.2.2 External mechanisms entail the conclusion of a service delivery agreement with one of the following entities:**

**4.2.2.1** a municipal entity;

**4.2.2.2** another municipality;

**4.2.2.3** an organ of state, including—

(a) a water services committee established in terms of the Water Services Act, Act 108 of 1997;

(b) a licensed service provider registered or recognised in terms of national legislation; and

(c) a traditional authority

4.2.2.4 a community based organisation or other non-governmental organisation legally competent to enter into such an agreement; or

4.2.2.5 any other institution, entity or person legally competent to operate a business activity.

**4.2.3** Since Sections 76, 77 and 78 relate specifically to the provision of municipal services, the first question which needs to be addressed before embarking on a detailed consideration of the service delivery mechanisms listed above, is whether it can be said that the provision of wastewater services by the City of Cape Town constitutes the rendering of a municipal service as envisaged by the MSA?

**4.2.4** In this regard section 1 of the MSA defines a municipal service as a service that a municipality in terms of its powers and functions provides or may provide to or for the benefit of the local community irrespective of whether—

4.2.4.1 such a service is provided, or to be provided, by the municipality through an internal mechanism contemplated in section 76 or by engaging an external mechanism contemplated in section 76; and

4.2.4.2 fees, charges or tariffs are levied in respect of such a service or not.

**4.2.5** As was stated earlier in the Report, in terms of the Constitution, the provision of Wastewater Management services is one of the matters which the City of Cape Town (as a municipality) has the right to administer and in respect of which it is empowered to exercise executive authority. The Municipality currently exercises this right/power by providing Wastewater Management service through its Water Services Department and recovers a tariff for doing so. It is thus our view that the provision of Wastewater Management service by the Municipality constitutes the rendering of a municipal service by the Municipality as envisaged by the MSA.

**4.2.6** Having identified the possible service delivery mechanisms/options available to the Municipality, it is necessary to select from these options, those that are likely to constitute viable institutional service delivery options.

**4.2.7** It is our view that a viable institutional service delivery mechanism should promote and give effect inter alia to the following primary objectives:

- 4.2.7.1 safeguarding and promoting the continued financial sustainability of the municipal Wastewater Management service;
- 4.2.7.2 minimising and if possible relieving the Municipality and other prospective participants in WWMM from the financial, operation and legislative burdens associated with Wastewater Management service whilst ensuring that the Municipality are able to discharge their constitutional and other legislative mandates;
- 4.2.7.3 safeguarding the rights and interests of municipal and other employees within the City of Cape Town area;
- 4.2.7.4 safeguarding the rights and interests of Wastewater Management consumers;
- 4.2.7.5 minimising the costs associated with the creation of the external service delivery mechanism including but not limited to all costs associated with the transfer of relevant selected assets, liabilities, rights and obligations to the external service delivery mechanism;
- 4.2.7.6 ensuring that the external service delivery mechanism is created within the boundaries of the existing legal framework, in a way that will empower it to function in a manner not dissimilar to that in which municipal Wastewater Management services currently function;
- 4.2.7.7 ensuring that the external mechanism is established within the boundaries of the existing legal framework in a manner that promotes:
  - a. Value for money;
  - b. Ability to be practically and efficiently implemented;
  - c. Operational; Financial; and Environmental Sustainability;
  - d. Affordability.

### **4.3 PUBLIC-PRIVATE-PARTNERSHIPS (PPP)**

What is a PPP? The South African law defines a PPP as a contract between a public sector institution/municipality and a private party, in which the private party assumes substantial financial, technical and operational risk in the design, financing, building and operation of a project.

There are three types of PPPs i.e.:

- where the private party performs an institutional/municipal function;
- where the private party acquires the use of state/municipal property for its own commercial purposes; or
- a PPP may also be a hybrid of the two types above.

Payment in any scenario involves one of three mechanisms:

- the institution/municipality paying the private party for the delivery of the service, or
- the private party collecting fees or charges from users of the service, or
- a combination of these

Each one of the Municipal Systems Act options i.e. a municipal Internal Business Unit; Municipal Entity; Organ of State, etc, is able to establish a PPP arrangement.

Municipal PPPs are governed in terms of the MFMA, 2003 (Act no 56 of 2003)

#### **4.4 THE IDENTIFICATION AND SELECTION OF OPTIONS FOR SERVICE DELIVERY**

Against the backdrop of the internal and external service delivery options available to the Municipality in terms of section 76 of the MSA, we will now consider which of these constitute viable service delivery options for the Municipality. For this purpose we will consider each of the options available in terms of Section 76 with a view to identifying and selecting one or more of these as preferred options.

##### **4.4.1 SERVICE DELIVERY OPTION 1: A DEPARTMENT OR OTHER ADMINISTRATIVE UNIT WITHIN THE MUNICIPALITY'S ADMINISTRATION**

The Zandvliet and Cape Flats, and Fisantekraal wastewater treatment works currently form a part of (or a "department or other administrative unit" of) the Wastewater Department which forms part of the Water and Sanitation Service. These three treatment works are an integral part of the overall network of wastewater treatment works in the City.

The **Zandvliet Wastewater Treatment Works** had been operated and maintained on a private contract ("service delivery agreement") basis since its construction by the Provincial Administration Western Cape in ± 1988. The **Cape Flats Wastewater Treatment Plant's** service delivery agreement has expired and authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a Section 78 investigation has been concluded and the outcome put in place. The **Fisantekraal Wastewater Treatment Works** will be commissioned around 2010/11 and further capacity extensions are expected in future as development of the region takes place.

This could be a feasible option, particularly if this option is combined with one of the other options such as **Option 8: "Service Delivery Option 8: A Service Delivery Agreement with any other institution, entity or person legally competent to operate a business activity"** – refer to section 4.4.8.

**4.4.2 SERVICE DELIVERY OPTION 2: A BUSINESS UNIT WHICH OPERATES WITHIN THE MUNICIPALITY'S ADMINISTRATION**

The Systems Act refers to a Business Unit which operates within the Municipality's administration and under the control of its municipal council in accordance with the operational and performance criteria determined by such municipal council. As with a department (Option 1), the establishment of a business unit does not establish a separate legal entity. A business unit cannot facilitate the participation of other participants in the Municipality, namely other municipalities or external entity's.

**4.4.3 SERVICE DELIVERY OPTION 3: ANY OTHER COMPONENT OF THE MUNICIPALITY'S ADMINISTRATION**

It is somewhat difficult to evaluate and analyse this service delivery option since it is not clear what is envisaged by the words: "any other component". Although it may be possible to conceive of a mechanism other than a department or a business unit which nevertheless exists and functions within the Municipality's administration it would appear that, based on the Section 78(1) Report, Option 2 represents the better internal service delivery mechanism, and it is therefore not necessary to consider this option any further.

**4.4.4 SERVICE DELIVERY OPTION 4: A SERVICE DELIVERY AGREEMENT WITH A MUNICIPAL ENTITY**

The MSA empowers a municipality to establish and to participate in the establishment of a municipal entity. In terms of Section 86B of the MSA, a municipal entity may take the form of:

- (a) a private company established by one or more municipalities or in which one or more municipalities acquire or hold an interest;
- (b) a service utility established by a municipality; or
- (c) a multi-jurisdictional service utility established by two or more municipalities.

Section 86B(2) provides that no municipality may establish or participate in the establishment or acquire or hold an interest in a corporate body unless such corporate body is a private company, service utility or multi-jurisdictional service utility, or a fund for the benefit of its employees in terms of the law regulating pensions or medical aid schemes.

Having said this it is necessary to consider each of the forms which a municipal entity may take in order to determine which of these if any are likely to provide suitable vehicles for establishment of external service mechanisms and the provision of Wastewater Management services through external mechanisms.

Where a municipal entity is to take the form of a private company it is a requirement of the MSA that it be incorporated as a private company in terms of the Companies Act<sup>1</sup>. A municipality seeking to establish such a municipal entity may either procure the incorporation of such a company itself or it may acquire an interest in an existing private company. As will be seen from the discussion of Options 5 and 6, this is important since it allows a municipality to acquire an interest in an existing private company which would include the companies to be incorporated by the Municipality for purposes of establishing the external entity.

It is also useful to note that a municipal entity which takes the form of a private company will meet one key requirement for an external mechanism.

However, the question which needs to be considered is whether a municipal entity which takes the form of a private company is capable of enabling participation in it by other municipalities - which is an option for the WWMM.

As will be seen from the provisions of Section 86C(2) above as well as the paragraphs which follow herein below the extent of the shareholding held by a municipality or municipalities in a private company has material bearing upon two things:

- a. the ability of entities other than municipalities to participate in that private company (section 86C(2)); and
- b. the status of that private company (section 86D).

Section 86C(2)(b) of the MSA provides that a municipality which establishes or acquires an interest in a private company may either acquire full ownership of that company or a lesser interest therein. However, a municipality may only hold a lesser interest in a private company if all other interests are held by:

- a. another municipality or municipalities;
- b. one of more national and/or provincial organs of state; or
- c. any combination of the institutions referred to above.

Since it is an option that the shareholders of the external entity might comprise a number of municipalities the provisions of Section 86C(2)(b) are very important for the establishment of the WWMM if it is to take the form of a municipal entity, since the

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<sup>1</sup> Act 61 of 1973

shareholders will only be able to participate in external entity in that instance if they qualify as national and/or provincial organs of state.

The question which thus arises is whether or not the external entity will be regarded as constituting national or provincial organs of state.

Section 1 of the MSA defines an organ of state with reference to the corresponding definition in section 239 of the Constitution. Section 239 defines an organ of state as meaning:

- a. any department of state or administration in the national, provincial or local sphere of government; or
- b. any other functionary or institution –
  - exercising a power or performing a function in terms of the Constitution or a provincial constitution;
  - or exercising a public power or performing a public function in terms of any legislation, but does not include a court or a judicial officer.

A “**national organ of state**” means an organ of state functioning within the national sphere of government;

A “**provincial organ of state**” means an organ of state functioning within the provincial sphere of government;

Since the City of Cape Town does not constitute an organ of state it therefore complicates matters in relation to a municipal service. Then the provisions of Section 86C(2)(b) will not avail the Municipality in establishing the external entity.

Section 86C(2) refers to the acquiring or holding “an interest” and although the MSA does not define what is meant by acquiring or holding “an interest” means, it is our view that on a plain language interpretation this phrase is wider than the mere holding of shares in a company. However, for present purposes, it is sufficient that the phrase includes the acquisition and the holding of shares in a company.

Section 86D of the MSA provides that:

- a. a private company will be regarded as a municipal entity if a municipality, or two or more municipalities collectively, have effective control of the private company;
- b. a private company will be regarded as a public entity if ownership control of the company (as defined in the Public Finance Management Act<sup>2</sup>) is held by a national or provincial organ of state.

It is clear however that the model envisages that the shareholders in the external entity will comprise other municipalities, and it is thus important that Section 86C(2) allows the Municipality to acquire and/or hold a lesser interest in external entity should it take the form of a municipal entity in terms of the MSA.

Another important aspect of section 86D is that whilst the MSA clearly envisages that a municipal entity which does not take the form of a service utility or a multi-jurisdictional service utility must take form of a private company, Section 86D envisages that a private company need not be a municipal entity.

Section 86D is thus very important to the present project in that it enables a municipality such as City of Cape Town to either establish or acquire or hold an interest in a company which is a municipal entity and which is thus subject to the restrictions of Section 86C of the MSA or to do so in respect of a private company which is not a municipal entity but which is a public entity in terms of the PFMA provided that ownership control (as defined in the PFMA) of that company vests in or more national or provincial organs of state;

Section 83(1) read with Section 80(1)(b) provides that if a municipality decides to provide a municipal service through a service delivery agreement with an entity other than a municipal entity, another municipality, or a national or provincial organ of state it must engage in a competitive bidding process which complies with the requirements of Section 83(1) and chapter 11 of the MFMA and which is fair, equitable, transparent, cost-effective and competitive.

The upshot of Section 83 is therefore that unless the entity constitutes a municipal entity or a national or provincial organ of state, the Municipality will not be able to conclude a service delivery agreement with the new entity unless it has engaged in the competitive bidding process described above which creates the risk that a third party other than the external service provider could be successful in the bidding process.

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<sup>2</sup> Act 1 of 1999.

### **A Municipal Entity in the form of a Service Utility**

As stated earlier one of the forms which a municipal entity can take is a service utility. A service utility is an entity created by by-law<sup>3</sup> hence it does not exist as a company in terms of the Companies Act and will thus not meet one of the key characteristics of an external mechanism. A service utility is created by one single municipality and the by-laws that create it may not confer upon it any functions or powers falling outside the competence of the parent municipality<sup>4</sup>. It is thus clear that a service utility cannot become or function as an appropriate external mechanism.

### **A Municipal Entity in the form of a Multi-jurisdictional Service Utility**

Multi-jurisdictional service utilities are entities created by agreement between two or more municipalities<sup>5</sup> hence they too do not exist as companies in terms of the Companies Act and with thus not meet the requirement that the WWMM entity should be created and function as private companies in terms of the Companies Act. Furthermore, as with service utilities, multi-jurisdictional service utilities have no competence to perform activities falling outside of the scope of the agreements which create them which in turn means that they cannot operate outside the competence of their parent municipalities. The other difficulty is that multi-jurisdictional service utilities are accountable to their parent municipalities. It is thus clear that as with a service utility, multi-jurisdictional service utilities do not provide a viable mechanism for establishing or participating in the proposed WWMM entity.

#### **4.4.5 SERVICE DELIVERY OPTION 5: A SERVICE DELIVERY AGREEMENT WITH ANOTHER MUNICIPALITY**

As with multi-jurisdictional service utilities the conclusion of one or more service delivery agreements with one or more municipalities will not enable the establishment or the participation of the Municipality in the external entity since this option does not provide for the creation of a separate legal entity in the form of a company. It thus does not provide a viable service delivery mechanism for the Municipality.

#### **4.4.6 SERVICE DELIVERY OPTION 6: A SERVICE DELIVERY AGREEMENT WITH AN ORGAN OF STATE**

A Service Delivery Agreement with an Organ of State, includes

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<sup>3</sup> See Section 86H(1) of the MSA.

<sup>4</sup> See Section 86h(4) of the MSA.

<sup>5</sup> Section 87 of the MSA.

- a water services committee established in terms of the Water Services Act, Act 108 of 1997;
- a licensed service provider registered or recognised in terms of national legislation, and
- a traditional authority.

If one considers the organs of state which are listed in section 76(b)(iii) it is our view that the conclusion of a service delivery agreement with a water services committee will not be a viable option given that a water services committee is not a company and therefore cannot facilitate the participation of municipalities and Municipality as shareholders.

Similarly the conclusion of a service delivery agreement with a traditional authority will not provide a viable option for purposes of facilitating the Municipality's participation or that of other municipalities.

#### **4.4.7 SERVICE DELIVERY OPTION 7: A SERVICE DELIVERY AGREEMENT WITH A COMMUNITY BASED ORGANISATION**

The Act refers to a Service Delivery Agreement with a community based organisation or other non-governmental organisation legally competent to enter into such an agreement.

In our view this is not a viable option since the appropriate mechanism by definition does not constitute a community based organisation or an NGO since its only member is municipalities. It is also highly unlikely that any such body presently exists or would exist which has or would have the necessary skills, knowledge and other resources required to render the Wastewater Management services required of an external mechanism for Wastewater Management service delivery.

#### **4.4.8 SERVICE DELIVERY OPTION 8: A SERVICE DELIVERY AGREEMENT WITH ANY OTHER INSTITUTION, ENTITY OR PERSON LEGALLY COMPETENT TO OPERATE A BUSINESS ACTIVITY**

**This option is potentially very wide since it covers any other institution, entity or person legally competent to operate a business activity.** The option could include a Public-Private-Partnership (PPP) but the municipality has the ability to fund the project without the assistance of an external service provider. The relevant WWTW's also constitute an essential and integral part of the wastewater treatment network. Two of the WWTW's are already built and the new Fisantekraal plant has already been audited in terms of its technical and other capabilities. **The PPP is therefore not a feasible option and this option will not be given any further consideration in the report.**

The Service Delivery Agreement option offers the Wastewater Branch the feasible opportunity to establish a service delivery agreement with a legally constituted company which is able to provide the necessary expertise to manage the Zandvliet, and/or Cape Flats, and/or Fisantekraal Wastewater Works.

**5. ASSESSMENT OF IMPACTS**

**5.1 DEFINITION OF FUNCTION / SERVICE S78(3)(c)/S84(1)(A)**

The Wastewater Treatment Service operates within the boundaries of the City of Cape Town Municipal area. The location of the wastewater treatment works are shown on the map of the Cape Metropolitan area below:



The WWTW's operating hierarchy is as follows:

WORKS	Grade	Grade	MANAGER OF WWTW LEVEL 1				LEVEL 2	
			DESIGNATION	Grd	DESIGNATION	Grd	DESIGNATION	Grd
Athlone	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	13	Process Controller/Snr/Prin	6/7-9
Belville	A	A	Watercare	15	Asst Watercare	13	Process	6/7-9

WORKS	Grade	Grade	MANAGER OF WWTW LEVEL 1				LEVEL 2	
			DESIGNATION	Grd	DESIGNATION	Grd	DESIGNATION	Grd
			Manager Gr 4		Manager Grd 3		Controller/Snr/Prin	
Borcherds Quarry	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr/Prin	6/7-9
Cape Flats	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	13	Process Controller/Snr/Prin	6/7-9
Fisantekraal	-	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr/Prin	6/7-9
Gordons Bay	C	D	Watercare Manager Gr 1	12			Process Controller	6/7
Kraaifontein	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr	6/7-8
Macassar	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr	6/7-8
Melkbosstrand	C	D	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Mitchell's Plain	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr	6/7-8
Potsdam	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	13	Process Controller/Snr	6/7-8
Scottsdene	C	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Sea Outfalls	D	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Simonstown	C	D	Watercare Manager Gr 1	12			Process Controller	6/7
Wesfleur	B	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Wildevoevllei	B	C	Watercare Manager Gr 2	13	Principal Process Controller		Process Controller/Snr	6/7-8

*The current DWAF grading system does not adequately score complexity of the treatment works*

*The proposed DWAF grading systems considers a large number of complicating factors and is a more accurate grading system.*

The above Labour Complement excludes the Support Services provided within Water and Sanitation; by the City of Cape Town's Corporate Services; Environmental Resource Management and other departments.

The above Labour Complement excludes the Support Services provided within Water and Sanitation; by the City of Cape Town's Corporate Services; Environmental

**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%

*(City of Cape Town WSDP 2007/08 to 2011/12/27)*

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

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

The Water Services Development Plan (2007 to 2011) indicates that, depending on adequate financial and human resources, it is envisaged that 100% of treated wastewater effluent will be compliant with current DWAF standards (1984 standards) by 2012.

**5.2 NATURE / QUALITIES OF FUTURE SERVICE PROVIDER AND SERVICE PROVISION MECHANISM**

**5.2.1 PROJECTED OUTPUTS EXPECTED: SECTION 78(3)(C)(III)**

The objective of any new service delivery mechanism must be to maintain and where possible improve the outputs currently delivered by the Municipality's wastewater treatment, namely:

- Maintain customer satisfaction as measured through an appropriate customer satisfaction index
- Remain compliant with all relevant wastewater treatment statutory requirements, including corporate governance, industry-specific requirements, workforce representivity /equity

- Ensure financial sustainable service delivery with respect to cash generation and return on investment

**5.2.2 SECTION 78(3)(B)(II) CAPACITY AND POTENTIAL FUTURE CAPACITY AS REGARDS SKILLS, EXPERTISE AND RESOURCES**

This section requires that an assessment be made of the capacity and potential future capacity of prospective service providers to furnish the skills, expertise and resources necessary for the provision of the municipal service in question.

**Operating Capacity of Current Works**

**ZANDVLIET WWTW**

**FUTURE PROJECTED FLOW**

based on period Jan 2005 to Jan 2010

<b>MONTH</b>	<b>Est flow</b>	
--------------	-----------------	--

$y=ax+b$

Dec-2009	68.46	ML/d
Dec-2010	72.38	ML/d
Dec-2011	76.31	ML/d
Dec-2012	80.23	ML/d
Dec-2013	84.16	ML/d
Dec-2014	88.08	ML/d
Dec-2015	92.00	ML/d
Dec-2016	95.93	ML/d
Dec-2017	99.85	ML/d
Dec-2018	103.78	ML/d
Dec-2019	107.70	ML/d
Dec-2020	111.62	ML/d
Dec-2021	115.55	ML/d
Dec-2022	119.47	ML/d

**ZANDVLIET WWTW**

**FUTURE PROJECTED FLOW**

Dec-2023		123.40	ML/d
Dec-2024		127.32	ML/d
Dec-2025		131.24	ML/d

Flow prediction for Fisantekraal very difficult as it involves diversion from Kraaifontein WWTW.

The flow predictions below assumes that Kraaifontein is capped at 17 ML/d.

**KRAAIFONTEIN & FISANTEKRAAL WWTW**

**FUTURE PROJECTED FLOW**

based on period Jan 2000 to Jan 2010

MONTH	Est flow	Kraaifontein.	Fisantekraal
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$$y=ax+b$$

Dec-2009	30.79	17.0		ML/d
Dec-2010	32.91	17.0	15.91	ML/d
Dec-2011	35.03	17.0	18.03	ML/d
Dec-2012	37.14	17.0	20.14	ML/d
Dec-2013	39.26	17.0	22.26	ML/d
Dec-2014	41.38	17.0	24.38	ML/d
Dec-2015	43.50	17.0	26.50	ML/d
Dec-2016	45.62	17.0	28.62	ML/d
Dec-2017	47.73	17.0	30.73	ML/d
Dec-2018	49.85	17.0	32.85	ML/d
Dec-2019	51.97	17.0	34.97	ML/d
Dec-2020	54.09	17.0	37.09	ML/d
Dec-2021	56.21	17.0	39.21	ML/d

**KRAAIFONTEIN & FISANTEKRAAL WWTW**

**FUTURE PROJECTED FLOW**

Dec-2022	58.32	17.0	41.32	ML/d
Dec-2023	60.44	17.0	43.44	ML/d
Dec-2024	62.56	17.0	45.56	ML/d
Dec-2025	64.68	17.0	47.68	ML/d

The Cape Flats prediction is difficult as Raapenberg flow may be sent to Athlone or Cape Flats or some to both.

**CAPE FLATS WWTW**

**FUTURE PROJECTED FLOW**

based on period Jan 2003 to Jan 2010

MONTH	Est flow
-------	----------

$$y=ax+b$$

Dec-2009	162.9	ML/d
Dec-2010	170.8	ML/d
Dec-2011	178.6	ML/d
Dec-2012	186.4	ML/d
Dec-2013	194.3	ML/d
Dec-2014	202.1	ML/d
Dec-2015	209.9	ML/d
Dec-2016	217.8	ML/d
Dec-2017	225.6	ML/d
Dec-2018	233.4	ML/d
Dec-2019	241.3	ML/d
Dec-2020	249.1	ML/d
Dec-2021	257.0	ML/d

**CAPE FLATS WWTW**

**FUTURE PROJECTED FLOW**

Dec-2022	264.8	ML/d
Dec-2023	272.6	ML/d
Dec-2024	280.5	ML/d
Dec-2025	288.3	ML/d

**WWMM Operating Capacity**

The Zandvliet, Cape Flats, and Fisantekraal wastewater treatment works currently form a part of the Wastewater Branch which falls under the Water and Sanitation Department organisational structure.

**Skills Capacity**

Over the past few years the Wastewater Branch has seen the loss of senior technical staff taking early retirement in order to work in the private sector.

A part of the problem is the lack of competitiveness with regards to remuneration and advancement opportunities. The local government service pay progression system is preventing high performance staff from rapid advancement through the ranks and pay levels, according to research undertaken by DWAF.

The City's Wastewater Branch is garnering professional support and services from the private sector to manage the Zandvliet, Cape Flats, and Fisantekraal WWTW's because it currently does not have the capacity to fulfil these tasks itself.

The Wastewater Branch is undertaking significant in-service training and mentoring of university and Technikon graduate engineers and technicians. However, it risks losing these trained and experienced personnel to the private sector unless it establishes retention mechanisms in the municipal work environment.

**5.3 PROJECTED FINANCIAL POSITION**

**Financial Assessment of the Wastewater Treatment Service**

The Wastewater Treatment works, and specifically the Zandvliet WWTW; Fisantekraal WWTW; and Cape Flats Pelletisation plant are not financially ring-fenced entities and as

such these wastewater treatment works do not have separate audited financial statements providing detailed direct and indirect costs.

The Wastewater Treatment branch forms part of Water & Sanitation Department which is not an autonomous ring-fenced Business Unit either. The Water Services department pays for financial and human resource support services from the Corporate Service department.

### Wastewater Treatment Operating Budget

#### Zandvliet

Provided below is the Operating Budget statement for Zandvliet Wastewater Treatment Department for the 2009/2010 Financial year:

<b>Expenditure Controllable Zandvliet</b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
Salaries, Wages & Allowances	-	-	-
Employee Related Costs – Social Contributions	-	-	-
<b>TOTAL SWA</b>	<b>-</b>	<b>-</b>	<b>-</b>
General Expenses	4,231,343.51	5,442,794.00	4,189,792.72
Contracted Services (Mainly Outsourced)	12,836,889.33	16,813,390.79	16,864,329.56
Repairs and Maintenance (Primary)	-	-	-
<b>TOTAL CONTROLLABLE</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>OTHER</b>			
Loss – Sale of Asset	-	-	-
Bad Debts	-	-	-
Depreciation	1,000,928.37	1,000,928.36	1,000,928.37
	-	-	-
Transfer to / from future Depreciation Fund (480500) CR	-	-	-
Transfer to / from future Depreciation Fund (480520) GGRN	-	-	-

<b>Expenditure Controllable <u>Zandvliet</u></b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
Transfer to / from future Depreciation Fund (480530) GGRN	-	-	-
Transfer to / from future Depreciation Fund (480600) CR:GCRN	-	-	-
<b>Appropriation Account</b>	-	-	-
<b>Capital Replacement</b>	-	-	-
<b>SECONDARY</b>			
<b>Bulk Charges</b>	-	-	-
<b>Interest Paid internal Loans</b>	2,779,138.93	3,120,590.32	2,900,129.00
<b>Internal Utilities</b>	554,424.94	559,599.15	628,612.77
<b>Insurance Departmental</b>	60,364.79	64,415.10	69,510.00
<b>Activity Based Costs</b>	-	-	-
<b>Support Services</b>	-	615,011.85	201,188.38
<b>Repairs &amp; Maintenance (Secondary)</b>	-	-	-
<b>TOTAL SECONDARY</b>	-	-	-
<b>TOTAL DEPARTMENT BUDGET</b>	<b>21,463,089.87</b>	<b>27,616,729.57</b>	<b>25,854,490.80</b> <b>+/- (43990 000)</b>

#### **Cape Flats Operating Budget**

Provided below is the Operating Budget statement for Cape Flats Wastewater Treatment Department for the 2009/2010 Financial year:

<b>Expenditure Controllable <u>Cape Flats</u></b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
<b>Salaries, Wages &amp; Allowances</b>	4,640,197.31	5,158,590.24	5,395,961.64

<b>Expenditure Controllable <u>Cape Flats</u></b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
<b>Employee Related Costs – Social Contributions</b>	1,180,017.35	1,308,310.31	1,640,209.90
<b>TOTAL SWA</b>	<b>5,893,914.95</b>	<b>6,524,402.47</b>	<b>7,036,171.54</b>
<b>General Expenses</b>	4,643,973.79	8,970,224.79	9,351,377.09
<b>Contracted Services (Mainly Outsourced)</b>	5,713,202.85	6,584,959.24	8,548,429.24
<b>Repairs and Maintenance (Primary)</b>	638,674.68	3,140,049.50	583,799.00
<b>TOTAL CONTROLLABLE</b>	<b>16,889,766.27</b>	<b>25,219,636.00</b>	<b>25,519,776.87</b>
<b>OTHER</b>			
<b>Loss – Sale of Asset</b>	-	-	-
<b>Bad Debts</b>	-	-	-
<b>Depreciation</b>	569,679.84	551,844.21	530,913.37
	-	-	-
<b>Transfer to / from future Depreciation Fund (480500) CR</b>	-	-	-
<b>Transfer to / from future Depreciation Fund (480520) GGRN</b>	-	-	-
<b>Transfer to / from future Depreciation Fund (480530) GGRN</b>	-	-	-
<b>Transfer to / from future Depreciation Fund (480600) CR:GCRN</b>	-	-	-
<b>Appropriation Account</b>	-	-	-
<b>Capital Replacement</b>	-	-	-

<b>Expenditure Controllable <u>Cape Flats</u></b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
<b>SECONDARY</b>			
<b>Bulk Charges</b>	-	-	-
<b>Interest Paid internal Loans</b>	1,000,637.40	1,516,293.53	3,655,088.00
<b>Internal Utilities</b>	7,751,362.61	9,638,770.39	11,253,846.20
<b>Insurance Departmental</b>	830,864.80	842,154.63	909,978.00
<b>Activity Based Costs</b>	1,103,961.11	770,992.93	609,842.52
<b>Support Services</b>	22,164.81	1,995,040.07	1,425,750.46
<b>Repairs &amp; Maintenance (Secondary)</b>	340,784.56	721,706.12	218,058.12
<b>TOTAL SECONDARY</b>	<b>11,049,775.29</b>	<b>15,484,957.67</b>	<b>18,072,563.30</b>
<b>TOTAL DEPARTMENT BUDGET</b>	<b>28,509,221.40</b>	<b>41,256,437.88</b>	<b>44,123,253.54</b>

#### Wastewater Treatment Department Operating Budget

Provided below is the Operating Budget statement for Wastewater Treatment Department for the 2009/2010 Financial year:

<b>Expenditure Controllable</b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
<b>Salaries, Wages &amp; Allowances</b>	34,997,865.03	39,829,270.98	46,626,115.58
<b>Employee Related Costs – Social Contributions</b>	7,389,970.76	8,594,746.25	11,923,184.62
<b>TOTAL SWA</b>	<b>42,917,439.83</b>	<b>48,874,578.31</b>	<b>58,549,970.68</b>
<b>General Expenses</b>	52,160,861.89	65,160,734.51	73,442,258.04
<b>Contracted Services</b>	19,176,189.63	23,630,265.27	26,153,664.51
<b>Repairs and Maintenance (Primary)</b>	23,140,748.10	26,635,946.33	21,436,638.00

<b>Expenditure Controllable</b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
<b>TOTAL CONTROLLABLE</b>	137,395,239.45	164,301,524.42	179,582,531.23
<b>OTHER</b>			
<b>Loss – Sale of Asset</b>	678.45		
<b>Bad Debts</b>			
<b>Depreciation</b>	15,891,684.91	17,250,732.33	18,014,577.20
<b>Transfer to / from future Depreciation Fund (480500) CR</b>	613,275.21-	523,225.95-	523,225.85-
<b>Transfer to / from future Depreciation Fund (480520) GGRN</b>	210,884.50-	1,143,056.91-	971,936.07-
<b>Transfer to / from future Depreciation Fund (480530) GGRN</b>	3,052,234.16-	2,945,096.04-	2,504,201.73-
<b>Transfer to / from future Depreciation Fund (480600) CR:GCRN</b>	22,668,539.94	137,659,999.37	117,100,000.00
<b>Appropriation Account</b>	18,792,146.07	133,048,620.47	113,100,636.35
<b>Capital Replacement</b>	4,956,004.23-	847,505.00-	
<b>SECONDARY</b>			
<b>Bulk Charges</b>		50,796.42	
<b>Interest Paid internal Loans</b>	26,910,133.06	37,906,736.50	56,728,419.52
<b>Internal Utilities</b>	26,130,390.95	32,767,395.58	42,044,901.79
<b>Insurance Departmental</b>	4,288,762.01	4,416,336.49	4,693,325.00
<b>Activity Based Costs</b>	10,708,124.67	11,739,095.82	12,007,320.05
<b>Support Services</b>	4,608,207.45	28,552,337.87	25,339,860.59

<b>Expenditure Controllable</b>	<b>2007- 2008 Actuals (Rands)</b>	<b>2008- 2009 Actuals (Rands)</b>	<b>2009- 2010 Budget (Rands)</b>
<b>Repairs &amp; Maintenance (Secondary)</b>	8,255,768.41	11,967,901.83	15,239,544.84
<b>TOTAL SECONDARY</b>	80,901,386.55	127,400,600.51	156,053,371.79
<b>TOTAL DEPARTMENT BUDGET</b>	<b>248,025,131.20</b>	<b>441,136,546.00</b>	<b>466,751,116.57</b>

The operating expenditures of the three WWTW's as a percentage of the total operating expenditure are as follows:

- Zandvliet 0,26%
- Fisantekraal 0.0%
- Cape Flats 0,15%

The Cape Flats TDP is currently outsourced to an external service provider, namely BiWater (Botjheng). The costs of the service are provided in the table below:

<b>Cape Flats Wastewater Treatment Works (Contracted Services)</b>	
<b>Payments made to BiWater in 2009 / 2010 Financial Year</b>	
	<b>Expenditure as per SAP</b>
May-2009	
June-2009	
July-2009	550,513.55
August-2009	428,227.39
September-2009	475,257.91
October-2009	383,563.96
November-2009	8,958.03
December-2009	713,743.25
January-2010	909,233.37

February-2010	17,398.38
March-2010	
April-2010	
May-2010	
June-2010	
<b>TOTAL</b>	<b>3,486,895.84</b>

In order to assess the likely costs if the Zandvliet and Cape Flats Wastewater Treatment Works were not outsourced but undertaken by internal (additional) staff, comparisons are made with similar sized Wastewater works i.e. Cape Flats is compared with Kraaifontein, and Zandvliet is compared with Bellville.

The figures used for comparison are the 2001/2002 and 2006/2007 actual figures and based on actual volume treated, excluding capital costs for 2001/2002 and 2006/2007.

<b>2001/2002</b>	<b>BELLVILLE</b>	<b>CAPE FLATS</b>	<b>KRAAIFONTEIN</b>	<b>ZANDVLIET</b>
<b>Flow R/ML</b>	337	313	797	522
<b>ratio</b>	1.08	1.00	2.55	1.67
<b>2006/2007</b>	<b>BEL</b>	<b>CAP</b>	<b>KRA</b>	<b>ZAN</b>
<b>Flow R/ML</b>	746	560	930	921
<b>ratio</b>	1.33	1.00	1.66	1.64
<b>2010/2011</b>	<b>BEL</b>	<b>CAP</b>	<b>KRA</b>	<b>ZAN</b>
<b>Flow R/ML</b>	1,007	855	1,477	825
<b>ratio</b>	1.18	1.00	1.73	0.96

The Comparative costs for Kraaifontein and Cape Flats WWTW are as follows:

- Cape Flats WWTW: R855 per megalitre
- Kraaifontein WWTW: R1477 per megalitre

The difference is approximately R622 per megalitre. The costs are not inclusive of all the support service costs and other costs. However, the support service and other overhead costs apply to both the Cape Flats and Kraaifontein plants to a fairly equal extent.

Similarly, a comparison is made between the Bellville and Zandvliet works which are about the same size.

The Comparative costs for Bellville and Zandvliet WWTW are as follows:

- Bellville WWTW: R1,007 per megalitre
- Zandvliet WWTW: R825 per megalitre

The difference is approximately R182 per megalitre. As mentioned earlier, the costs are not inclusive of all the support service costs and other costs. However, these support costs apply to both the Bellville and Zandvliet plants to a fairly equal extent.

The conclusion is that the outsourced service is generally less expensive than the internal service.

### **5.3.1 SECTION 78(3)(B)(I) DIRECT AND INDIRECT COSTS AND BENEFITS**

The direct cost of the service will be the same for the internal and external service delivery options. The Zandvliet, Cape Flats, and Fisantekraal wastewater treatment works currently form a part of the Wastewater Branch which falls under the Water and Sanitation Department organisational structure. There exists potential for improvements in the Wastewater Branch by introducing Activity Based Costing and appropriate Service Level Agreements for services rendered by corporate support services. Such cost control interventions at Department level should have a beneficial impact on the overhead cost allocation per wastewater treatment works level

Due to the nature of the service we do not expect any of the service delivery mechanisms to differ in terms of its effect on the environment, human health, well being and safety.

### **5.3.2 ASSESSMENT OF VALUE FOR MONEY: SECTION 78(3)(C)(IV)(AA)**

The Zandvliet, Cape Flats, and Fisantekraal wastewater treatment works currently form a part of the Wastewater Branch which falls under the Water and Sanitation Department

organisational structure. There exists potential for improvements in the overall cost effectiveness of the Wastewater Branch by introducing Activity Based Costing and appropriate Service Level Agreements for services rendered by corporate support services. Such cost control interventions at Department level should have a beneficial impact on the overhead cost allocation per wastewater treatment works level. The project scope, however, is limited to the Zandvliet, Cape Flats, and Fisantekraal works only.

Without any intervention at the Branch or Department level, the three options i.e. Department, Internal Business Unit, and Municipal Entity, will not provide any significant differentiation in terms of improved financial structure; service delivery to expenditure ratio; tariff improvement; service equity and indigent support. There will be very little difference in terms of better governance structures and accountability. Given the fact that the relevant WWTW's are a part (or a "department" of the Wastewater Branch, the "department option" presents a better option in terms of ensuring consistency throughout the Wastewater Branch. (Refer to the Table: "Comparison of Internal with External Service Delivery Options")

### **5.3.3 ASSESSMENT OF AFFORDABILITY: SECTION 78(3)(C)(IV)(CC)**

The Zandvliet, Cape Flats, and Fisantekraal wastewater treatment works currently form a part of the Wastewater Branch which falls under the Water and Sanitation Service organisation structure. There exists potential for improvements in the overall cost effectiveness of the Wastewater Branch by introducing Activity Based Costing and appropriate Service Level Agreements for services rendered by corporate support services. Such cost control interventions at Department level should have a beneficial impact on the overhead cost allocation per wastewater treatment works level.

In the absence of any intervention at the parent Wastewater Branch or Water & Sanitation Service level, there will not be much difference between the options (at the wastewater works level) in terms of meeting the demands for affordable, equitable, financially sustainable delivery.

## **5.4 IMPACTS ON MUNICIPAL RESOURCE**

### **5.4.1 PROJECTED IMPACT ON MUNICIPAL STAFF, ASSETS AND LIABILITIES: SECTION 78(3)(C)(V)**

#### **5.4.1.1 STAFF**

##### **Staff – Zandvliet WWTW**

The **Zandvliet Wastewater Treatment Works** had been operated and maintained on a private contract basis since its construction by the Provincial Administration Western Cape in ± 1988. While this private contract has expired, authority has been granted by the City

Manager to extend the current arrangement on an ad-hoc basis until a section 78 investigation has been concluded and the outcome put in place.

The Zandvliet Works consists of an activated sludge plant which has recently been extended to a total capacity of 77 Ml/day. The process configuration consists of a conventional 59Ml/d activated sludge (CAS) plant together with a separate recently constructed 18Ml/d membrane bioreactor (MBR) plant. Mechanical sludge dewatering via the belt presses forms part of the treatment process. Due to the significant development in the catchment area, this plant is likely to be further extended in the next five years or so.

### **Staff – Cape Flats WWTW**

The **Cape Flats Wastewater Treatment Plant's** private contract has expired and authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a Section 78 investigation has been concluded and the outcome put in place.

The sludge drying facility enables thickened sludge to be heat treated to form a pelletised product. The advantage of this process is that it reduces the volume of sludge to be disposed of and serves to create a highly user friendly product which has various beneficial end uses. The capacity of the thermal drying plant is sufficient to allow sludge to be "imported" from other wastewater treatment works, hence optimising the operation of the facility and the regional management of sludge.

### **Staff – Fisantekraal WWTW**

The **Fisantekraal Wastewater Treatment Works** will be commissioned around 2010/11 and further capacity extensions are expected in future as development of the region takes place. The 24 Ml/day plant will comprise a modern activated sludge treatment process inclusive of mechanical sludge dewatering and odour control mechanisms. It is anticipated that there will be significant opportunity for final effluent and solids by-product to be used on surrounding farm lands as irrigation water and soil conditioner.

### **Staff – General Issues**

The three WWTW under investigation are part of the City of Cape Town's Wastewater Branch. The Wastewater Branch's labour complement is as follows:

Designation	T grade	Number of posts required	Number of posts filled	Number of vacancies
Manager: Wastewater	20	1	1	0
Head: Project & Impl.	16	1	1	0
Head: Operations	17	2	2	0
Head: Dev & Infrastructure Planning	16	1	1	0
Head: Operational Support	16	1	1	0
Head: Finance & Admin	14	1	1	0
District Manager	16	4	2	2
Prin. Professional Officer	16	4	4	0
Sen. Professional Officer	14/15	3	0	3
Professional Officer	12/13	3	1	2
Senior Technical Assistant	9	1	1	0
Senior Typist	6/7	1	1	0
Clerk 3	8	2	2	0
Clerk 2	7	1	0	1
WC Man Grade 4	15	4	4	0
WC Man Grade 3	14	5	4	1
WC Man Grade 2	13	5	4	1
WC Man Grade 1	12	2	1	1
Assistant WC M Grade 3	13	4	1	3
Assistant WC M Grade 2	12	5	1	4
Assistant WC M Grade 1	10	0	0	0
Principle Process Controller	9	36	9	27
Process Controller/Senior	6/8	61	62	-1
Process Operator/Senior/Principle	3/5	116	78	38
Stores Clerk	9	2	0	2
Clerk Grade 3	8	2	6	-4
Clerk Grade 2	7	10	4	6
Clerk Grade 1	6	14	5	9
Senior Foreman	9	2	4	-2
Foreman	8	5	4	1
Special Workman	7	9	2	7
Handyman/Senior	4/5	23	15	8

Designation	T grade	Number of posts required	Number of posts filled	Number of vacancies
Maintenance Assistant	3	31	18	13
Worker/Senior	1/2	44	24	20
Driver Grade 2/Grade 3	5/6	6	7	-1
<b>TOTAL</b>		<b>412</b>	<b>271</b>	<b>141</b>

The Wastewater Treatment Work's Operating Hierarchy is as follows:

WORKS	current	proposed	MANAGER OF WWTW				LEVEL 2	
	grade	grade	DESIGNATION	Grd	DESIGNATION	Grd	DESIGNATION	Grd
Athlone	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	3	Process Controller/Snr/Prin	6/7-9
Bellville	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	13	Process Controller/Snr/Prin	6/7-9
Borcherds Quarry	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr/Prin	6/7-9
Cape Flats	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	13	Process Controller/Snr/Prin	6/7-9
Fisantekraal	-	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr/Prin	6/7-9
Gordons Bay	C	D	Watercare Manager Gr 1	12			Process Controller	6/7
Kraaifontein	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr	6/7-8
Macassar	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr	6/7-8
Melkbosstrand	C	D	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Mitchell's Plain	A	B	Watercare Manager Gr 3	14	Asst Watercare Manager Grd 2	12	Process Controller/Snr	6/7-8
Potsdam	A	A	Watercare Manager Gr 4	15	Asst Watercare Manager Grd 3	13	Process Controller/Snr	6/7-8
Scottsdene	C	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Sea Outfalls	D	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Simonstown	C	D	Watercare Manager Gr 1	12			Process Controller	6/7

WORKS	current	proposed	MANAGER OF WWTW				LEVEL 2	
	grade	grade	DESIGNATION	Grd	DESIGNATION	Grd	DESIGNATION	Grd
Wesfleur	B	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8
Wildevoelwei	B	C	Watercare Manager Gr 2	13	Principal Process Controller	9	Process Controller/Snr	6/7-8

*The current DWAF grading system does not adequately score complexity of the treatment works*

*The proposed DWAF grading system considers a large number of complicating factors and is a more accurate grading system.*

The above Labour Complement excludes the Support Services provided by Corporate Services.

The access to and recruitment of engineering technical staff is a high priority and technical skills retention is a long-term concern of the Wastewater Service. The Wastewater Branch has had a turnover of highly skilled and experienced technical staff – most of the losses occurring due to early retirement in order to work in the private sector.

The City has undergone numerous organizational restructuring over the past 12 years, resulting in “change fatigue”.

The City, and by implication the Wastewater Branch, operates in a highly unionised environment.

#### 5.4.1.2 ASSETS

The Assets and Asset valuations for the three WWTW's under investigation are summarized in the table below:

No	WWTW	FIXED ASSETS			Ord. dep. Start
		Acquisition value (Rands)	Accumulated depreciation (Rands)	Book value (Rands)	
1	Zandvliet	676,235.00	0.00	676,235.00	01.03.2003
2	Fisantekraal	1,500,000.00	0.00	1,500,000.00	01.03.2003

3	Cape Flats Pellitisation plant	1,317,706.75	763,478.75	554,228	01.07.1997
<b>No</b>	<b>WWTW</b>	<b>MOVABLE ASSETS</b>			
		<b>Cost Value (Rands)</b>	<b>Accumulated depreciation (Rands)</b>	<b>Book value (Rands)</b>	
1	Zandvliet	631,018.00	-604,920	26,097.19	
2	Fisantekraal	568,375.46	-566,023	2,352.36	
3	Cape Flats Pellitisation plant	-	-	-	

The anticipated spending on capital expenditure for Fisantekraal will be about R141 million over the 2009/2010 and 2010/2011 financial year.

Fisantekraal will be completed in the 2010/2011 financial year and since it is a new Works there should be no capital expenditure until the next stage expansion in 2018/2019 and 2019/2020.

Zandvliet has capital funds on the draft next three FY starting in 2010/2011 of R40M, R41,5M & R30M. Followed a further extension proposed for 2014/15 to 2016/17 of estimated R140M.

Cape Flats Drying Plant has no capital budgeted for it.

#### 5.4.1.3 LIABILITIES

The relevant Wastewater Treatment Work's assets still have active loans – refer to the section 5.4.5 in the report

#### 5.4.2 ASSESSMENT OF ANY ASSETS TO BE TRANSFERRED TO THE ENTITY: SECTION 84(1)(B)(IV)

There is no need for any assets to be transferred to the entity. The assets will remain the property of the municipality. The capital costs for the new Fisantekraal WWTW have already been incurred.

**5.4.3 ASSESSMENT OF ANY ASSETS THAT MAY BECOME OBSOLETE: SECTION 84(1)(B)(v)**

There is no need for any assets to become obsolete as a consequence of the formation of any one of the three options.

**5.4.4 ASSESSMENT OF LIABILITIES TO BE CEDED TO THE ENTITY: SECTION 84(1)(B)**

The establishment of separate financial structures for each of the three wastewater treatment works is impractical. The Municipality would have to allocate certain liabilities to the relevant option as part of a ring-fencing of the Municipality's liability register.

**5.4.5 ASSESSMENT OF ANY DEBT OF THE MUNICIPALITY: SECTION 84(1)(B)**

The relevant Wastewater Branch still have active loans. The capital charges, as per general ledger cost elements, are as follows:

Cost Elements	Actual	Allotted	Plan
470100 Depreciation	583,874.89	583,874.89	1,000,928.37
500200 Interest Internal Loans	1,718,445.74	1,718,445.74	2,900,129.00
Over / Under-absorption	2,302,320.63	2,302,320.63	3,901,057.37

The Municipality is not overburdened with debt, but for the last few years capital expenditure were limited which reduced borrowings. Capital expenditure on wastewater treatment assets have in the past been below acceptable levels to ensure the effective operational continuity of the wastewater treatment undertaking.

The Municipality has completed unqualified audited financial reports and has a good credit rating.

The State of Municipal Infrastructure in South Africa and its Operation and Maintenance (Based on a CSIR Discussion Document: *Towards a framework for the maintenance of municipal infrastructure: In support of government growth objectives*, August 2006): quoted the following statement: "*The last two years have seen significant cuts in the operational and capital budgets, which challenge the sustainability of the service and may have a detrimental effect on the long-term tariffs. .... As a result the risk of impacts on public health and the environment due to inferior wastewater effluents is expected to be prolonged. The lack of financial investment in infrastructure results in "asset stripping" and causes increased risk of mechanical breakdown and process failure while effectively escalating the eventual capital improvement cost.*" (City of Cape Town 2004:12)

The standards for the performance of wastewater treatment works are laid down by the Department of Water and Environment Affairs.

**5.4.6 ASSESSMENT OF NUMBER OF STAFF TO BE TRANSFERRED TO THE ENTITY: SECTION 84(1)(B)(1)**

No staff transfers are required or envisaged for any one of the three options. In general, transfers, if any, in terms of section 197 of the LRA is likely to involve all funded posts, including vacant funded posts, permanent and contractual incumbents in order to ensure the operational continuity of the wastewater treatment undertaking.

**5.4.7 SECTION 84(1)(B)(2) ASSESSMENT OF NUMBER OF STAFF TO BE TRANSFERRED TO THE ENTITY**

No staff transfers are required or envisaged in terms of the options.

Technical Skills retention is a long-term concern and priority within the Wastewater Branch.

**5.4.8 ASSESSMENT OF COST OF ANY STAFF RETRENCHMENT OR RETENTION OF REDUNDANT STAFF**

This Municipal Systems Act clause does not apply to the Fisantekraal WWTW as the plant is currently not operational and therefore there are no staff issues involved. In terms of the Zandvliet and Cape Flats wastewater treatment works, no staff retrenchment is required or envisaged as a consequence of establishing any one of the feasible options.

**5.4.9 PROJECTED IMPACT ON MUNICIPALITY'S BUDGETS: SECTION 78(3)(C)(VII)**

It is not expected that any one of the feasible options will have any significant effect on the budget of the Municipality over and above a possible once-off transaction related cost.

**5.4.10 LIKELY IMPACT ON DEVELOPMENT AND EMPLOYMENT PATTERNS: SECTION 78(3)(B)(IV)**

Economic growth is necessary for development and creation of employment opportunities but it is not enough. It is also important that every effort be made to broaden access to affordable basic services. There is not likely to be a significant difference between the options in terms of the job creation. Job creation opportunities exist if synergies between Wastewater and Solid Waste Service are exploited in terms of bio-energy and waste-minimization. However, such synergy would only be practical at a Department level and not at one or three wastewater treatment works levels

**5.4.11 ASSESSMENT OF ADDRESSING NEEDS OF THE POOR: SECTION 78(3)(C)(IV)(BB)**

Economic growth is necessary to reduce poverty in the Western Cape, but it is not enough. It is also important that every effort be made to broaden access to affordable basic services.

There is not likely to be a significant difference between the various options. Job creation and the concomitant wealth creation opportunities exist if synergies between Wastewater and Solid Waste Service are exploited in terms of bio-energy and waste-minimization. However, such synergy would only be practical at a Department level and not at one or three wastewater treatment works levels.

**5.4.12 PROJECTED IMPACT ON THE MUNICIPALITY'S IDP: SECTION 78(3)(C)(IV)(BB)**

It is not expected that there will be a significant impact on the Integrated Development Plan (IDP). More detail on this matter is provided in the table "Comparison of Internal with External Service Delivery Options" in section 7 of this report.

**5.4.13 VIEWS OF ORGANISED LABOUR: SECTION 78(3)(B)(V)**

The views of Organized Labour have been solicited by the Municipality in terms of the MSA Section 78(1) process.

**5.4.14 VIEWS OF LOCAL COMMUNITY: SECTION 78(3)(B)(III)**

The City of Cape Town Municipality has taken the responsibility to obtain the views of the Local Community. All the views received from the Local Community will be attached as an addendum to this report.

**5.4.15 IMPACT ON ANY OTHER PRESCRIBED MATTER: SECTION 78(3)(B)(III)**

There is not likely to be a significant difference in impact between the various options. For more detail on this matter refer to the table "Comparison of Internal with External Options"

**5.4.16 APPROVALS, CONSULTATIONS AND NOTIFICATIONS: SECTION 84(2)**

The following approvals and/or notifications are required in terms of Section 84(2) of the MFMA:

- Section 84(2)(a)(i)(aa) - At least 90 days prior to the meeting of the Municipality's council at which the proposed establishment of a Municipal Entity or the Municipality's participation in a Municipal Entity is to be approved the Municipal Manager must make public an information statement setting out the Municipality's plans for the Municipal Entity together with the assessment which the Municipality must conduct in terms of Section 84(1)(b);

- Section 84(2)(a)(i)(bb) - At least 90 days prior to the meeting of the municipal council at which the proposed establishment of a Municipal Entity or the Municipality's participation in a Municipal Entity is to be approved the municipal manager must invite the local community, organised labour and other interested persons to submit to the Municipality comments or representations in respect of the matter (i.e. the establishment of or participation by the Municipality in a Municipal Entity i.e. external WWMM mechanism);
- Section 84(2)(a)(ii)(aa) - At least 90 days prior to the meeting of the Municipal council at which the proposed establishment of a Municipal Entity or the Municipality's participation in a Municipal Entity is to be approved the municipal manager must solicit the views and recommendations of the National Treasury and the relevant provincial treasury;
- Section 84(2)(a)(ii)(bb) - At least 90 days prior to the meeting of the Municipal council at which the proposed establishment of a Municipal Entity or the Municipality's participation in a Municipal Entity is to be approved the municipal manager must solicit the views and recommendations of the national and provincial departments responsible for local government;
- Section 84(2)(a)(ii)(cc) - At least 90 days prior to the meeting of the Municipal council at which the proposed establishment of a Municipal Entity or the Municipality's participation in a Municipal Entity is to be approved the municipal manager must solicit the

views and recommendations of the MEC for local government in the province;

The Municipality, whose responsibility it is to meet the approvals and/or notification requirements will set in motion a process in compliance with the above.

#### 5.4.17 APPROVALS, CONSULTATIONS AND NOTIFICATIONS: SECTION 78(3)

The following approvals and/or notifications are required in terms of Section 78(3) of the MSA:

- Section 78(3)(a)- The Municipality must give notice to the local

Community of its intention to explore the provision of wastewater treatment services through an external mechanism;

- Section 78(3)(b)(iii)-The Municipality must assess the different service delivery

Options in terms of Section 76 (b), taking into account the views of the local community;

- Section 78(3)(b)(iii)-The Municipality must assess the different service delivery

Options in terms of section 76 (b), taking into account the views of organised labour;

The Municipality, whose responsibility it is to obtain the views of the Community and Organised Labour must set in motion a process in compliance with the above.

- The Municipality must give notice to various government departments, including the following:

National Treasury

Cooperative Governance and Traditional Affairs

MEC for the Province

SALGA

Department of Water & Environmental Affairs

Other stakeholders

The views of National Treasury have been received and incorporated into this report. The views other stakeholders will be added as an addendum to this report.

## 6. IMPACT ON HEALTH AND THE ENVIRONMENT

The treated effluent wastewater that is returned to the environment must meet certain of DWAF quality standards in terms of the National Water Act of 1997. The City's WWTW's are not equipped to remove phosphorus from effluent and significant changes need to be made to most facilities in order to meet the stringent 1mg/l phosphate standard. Phosphorus is a key pollutant in receiving waters as it contributes eutrophication and associated prolific growth of problem aquatic plants and potentially harmful algal blooms.

Provided in the table below is a summary of the Percentage Compliance rate achieved by the City's WWTW's using DWAF general standards for 2008. The percentages are calculated on the basis of the number of times that effluent quality fails to meet the general standard in a year. For example, if the effluent fails ten times out of 100 measurements, it will have a 90% compliance rate. A compliance rate of over 95% is considered acceptable; and less than 75% is considered unacceptable.

	<b>Pollutant</b>	<b>Percentage Compliance rate with DWAF standard</b>
1	<b>Ammonia</b> (which is produced by interaction between bacteria and nitrogen compounds present in wastewater. This pollutant contributes to the eutrophication of receiving waters, and is toxic to both plant and animal life)	The average compliance rate was <b>81,2%</b> . Out of the 21 WWTW's in the City, eight achieved over 95% compliance. Five sites (including Zandvliet) were deemed unacceptable.
2	<b>Chemical Oxygen Demand</b> (COD is the measure of the amount of oxygen in water that is consumed for the oxidation of organic compounds. Oxidation of large quantities of organic matter in water may result in significant reduction in dissolved oxygen levels, which could result in respiratory distress in aquatic organisms)	The average compliance rate was <b>80,1%</b> . Out of the 21 WWTW's, nine sites achieved over 95% compliance, while five sites (including Cape Flats) were deemed unacceptable.
3	<b>E.coli</b> (E.coli is a bacterium that is commonly found in the intestines of warm-blooded animals as well as humans. The presence of E.coli in water is indicative of pollution with faecal matter. It is important in determining guidelines for recreational water quality.	The average compliance rate was 71,1%. Out of the 21 WWTW's four sites achieved more than 95% compliance, whilst eight sites (including Cape Flats) were deemed unacceptable.
4	<b>Suspended solids</b>	The average compliance rate was

		88,5%. Out of the 21 WWTW's eight sites achieved more than 95% compliance, while one site (Cape Flats) was deemed unacceptable.
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The City's State of the Environment Report -2008, noted the following:

- A significant growth in both residential and commercial development, coupled with the provision of sewerred toilets for many informal settlement dwellers, has placed a huge burden on the wastewater treatment system
- The growth was not matched by an increase in WWTW's capacity
- Significant capital investment is required in order to upgrade existing plants and build new ones
- The City has allocated a sizable portion of its capital budget to the upgrade and extension of wastewater treatment capacity
- The Wastewater Branch annually produces its ten-year capital plan highlighting the improvements and funding required
- Significant improvements in wastewater-treatment capacity and effluent quality have taken place over the past few years
- The City needs to continue exploring the considerable opportunities which exist for reducing the pressure on existing wastewater treatment systems through the use of alternative sustainable technologies
- Opportunities exist to exploit potential synergies and economy of scale benefits in the City's Wastewater and Solid Waste services to develop commercially sustainable use of waste for composting, fuel, etc.

Current relevant Energy Saving initiatives at the City of Cape Town with potential linkages with Wastewater are the following:

- Renewable energy supply at Eskom rates to City
- Landfill gas project - CEF partnership negotiations
- Biodigestors - waste to energy projects
- Greening Utilities fleet
- Green Procurement
- Renewable energy business in Cape Town: Study

Environmental regulations, which are quite stringent for Wastewater services, impact on the costs and affordability of the service. Mandatory compliance with environmental legislation is often quite capital intensive.

## **7. COMPARISON BETWEEN INTERNAL AND EXTERNAL OPTIONS**

### **7.1 BASIS FOR COMPARISON**

The **Zandvliet; Cape Flats**, and **Fisantekraal** wastewater treatment works currently form a part of (or a “department or other administrative unit” of) the Wastewater Department which forms part of the Water and Sanitation Service. These three treatment works are an integral part of the overall network of wastewater treatment works in the City.

The **Zandvliet Wastewater Treatment Works** had been operated and maintained on a private contract (“service delivery agreement”) basis since its construction by the Provincial Administration Western Cape in ± 1988. The **Cape Flats Wastewater Treatment Plant’s** service delivery agreement has expired and authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a Section 78 investigation has been concluded and the outcome put in place. The **Fisantekraal Wastewater Treatment Works** will be commissioned around 2010/11.

External entities do currently exist but there are none that are similar enough in order to compare “apples with apples” i.e. it is not easy to compare the individual Zandvliet, Cape Flats, or Fisantekraal Wastewater Works based on objective measures or performance statistics with the Dolphin Coast Wastewater Treatment Concessionaire because of the significant differences.

Therefore some assumptions will have to be made and comparisons will largely be based on subjective measures. Some of the subjective measures will be supported by extrapolations which are derived from the performance of the Municipality’s Wastewater Department in the Section 78(1) assessment and some comparative benchmarks in the sector.

### **7.2 ASSUMPTIONS MADE FOR COMPARISON PURPOSES**

In order to make comparisons and assess the best options the following facts need to be considered and certain assumptions drawn i.e.

- The relevant entities must comply with current legislation e.g. MSA; MFMA, etc.
- The quality of management and staff, and other variables not included in the selection criteria, are considered equal.

### **7.3 CRITERIA USED TO MAKE COMPARISONS**

Comparisons will be made using the MSA Section 78 criteria i.e.

- The direct and indirect costs and benefits associated with the project, including the expected effect of any service delivery mechanism on the environment and on human health, well-being and safety;
- The capacity and potential future capacity of prospective service providers to furnish the skills, expertise and resources necessary for the provision of the service;
- The views of the local community
- The likely impact on development and employment patterns in the municipality; and
- The views of organised labour

The criteria will also include the objectives of a viable institutional service delivery mechanism which should promote and give effect inter alia to the following primary objectives:

- Safeguard and promote the continued financial sustainability of the Municipality;
- Provide value for money in terms of cost and benefits;
- The mechanism is implementable, practical and feasible;
- Safeguard the rights and interests of the employees within the Municipality ;
- Safeguard the rights and interests of Wastewater consumers;
- Ensuring that the service delivery option is established within the boundaries of the existing legal framework; and
- Ensure that it is affordable.

#### **Matrix Table to Select Best Service Delivery Option**

The above criteria, which are supplemented by additional information in the main report, are provided in the table below for purposes of comparison. The table presents the main attributes of the three service delivery options (i.e. a department; internal business unit; or a municipal entity.). The comparison broadly follows the MSA considerations for evaluating internal and external options as described in Section 78 of the Act.

Table [...]Comparison of Internal with External Service Delivery Options

MSA Section	Summary of relevant Section	Relevant Aspects	A part of a Branch with Service Delivery Agreement with external service provider (Department & SDA)	Internal Business Unit (IBU)	Municipal Entity (ME)
78(1)(a)(i) & 78(3)(b)(i)	Direct and Indirect impacts (environment and human health, well-being and safety)	Environment	It is foreseen that the options will in principle have the same environmental impacts given the highly regulated Wastewater sector <b>3</b>	It is foreseen that the options will in principle have the same environmental impacts given the highly regulated Wastewater sector. However environment management occurs at a much higher level than at one wastewater work level <b>1</b>	It is foreseen that the options will in principle have the same environmental impacts given the highly regulated Wastewater sector. However environment management occurs at a much higher level than at one wastewater works level. <b>1</b>
		Service Equity (service access, tariff support, indigent support, etc.)	The closer the service provision is to the democratic decision-making process, the higher the likelihood of a more compassionate approach towards service equity. <b>3</b>	The determination of service equity and indigent support is only practical at a Department / Branch level, and not at a works level <b>1</b>	Decisions on service equity can only be practically implemented at a much higher level than at a wastewater works level <b>1</b>
		Tariff levels	There should not be a significant difference between the options in terms of tariff levels <b>2</b>	There should not be a significant difference between the options in terms of tariff levels <b>1</b>	There should not be a significant difference between the options in terms of tariff levels <b>1</b>

Investigation in terms of Section 78(3) of the Local Government: Municipal Systems Act

MSA Section	Summary of relevant Section	Relevant Aspects	A part of a Branch with Service Delivery Agreement with external service provider (Department & SDA)	Internal Business Unit (IBU)	Municipal Entity (ME)
		Co-ordination with other CoCT Municipality non-Wastewater initiatives/plans	Planning and co-ordination would be driven by the internal procedures of the separate entities <span style="float: right;">2</span>	Planning and co-ordination will be carried out according to service level agreements. But not practical to have a system for one or three works only <span style="float: right;">1</span>	Planning would be codified and carried out according to service delivery agreements. But not practical to have a system for one or three works only. <span style="float: right;">1</span>
78(1)(a)(ii) & 78(3)(b)(ii)	Municipality's capacity and potential future capacity to furnish skills, expertise and resources necessary for the provision of the service	Skills capacity	There have been significant skills losses to the private sector. Improvements are needed in municipal remuneration & promotion systems <span style="float: right;">2</span>	Not practical for a WWTW e.g. like Zandvliet, to employ its own independent management & technical team <span style="float: right;">1</span>	Not practical for a WWTW e.g. like Zandvliet, to employ its own independent management & technical team <span style="float: right;">1</span>
		Managerial control / Management of operating efficiency, / Degree of autonomy to manage resources	Managerial control subject to extent that appropriate service level agreements are applied. <span style="float: right;">1</span>	The WWTW's form part of an inter-dependent network within the Branch and it is not practical or financially feasible to have separate managerial control, administrative & support structures for one or three WWTW's only <span style="float: right;">1</span>	The WWTW's form part of an inter-dependent network within the Branch and it is not practical to have separate managerial control for one or three WWTW's only <span style="float: right;">1</span>










Investigation in terms of Section 78(3) of the Local Government: Municipal Systems Act

MSA Section	Summary of relevant Section	Relevant Aspects	A part of a Branch with Service Delivery Agreement with external service provider (Department & SDA)	Internal Business Unit (IBU)	Municipal Entity (ME)
		Asset maintenance and management	Asset management requirements now stricter under MFM A. History of spare capacity now under budget priorities constraint. <span style="float: right;">2</span>	Not practical and financially feasible to have separate assets; maintenance; and management for one or three WWTW's only <span style="float: right;">1</span>	Not practical to have separate assets; maintenance; and management <span style="float: right;">1</span>
		Attraction of key skills	Municipal employment environment traditionally reasonably remunerated with good conditions of service. Local authorities currently experiencing outflow of skills <span style="float: right;">2</span>	Not practical structure given the inter-dependent nature of wastewater treatment works. <span style="float: right;">1</span>	Not practical to establish an ME structure for one wastewater treatment works <span style="float: right;">1</span>
		Quality of service to Customer satisfaction	Able to meet the demands for affordable, equitable, and financially sustainable delivery as required <span style="float: right;">2</span>	Not practical structure given the inter-dependent nature of wastewater treatment works <span style="float: right;">1</span>	Not practical to establish an ME structure for one wastewater treatment works <span style="float: right;">1</span>






Investigation in terms of Section 78(3) of the Local Government: Municipal Systems Act

MSA Section	Summary of relevant Section	Relevant Aspects	A part of a Branch with Service Delivery Agreement with external service provider (Department & SDA)	Internal Business Unit (IBU)	Municipal Entity (ME)
		Access to capital, borrowing and grant funding	Can piggy-back on municipality's access to finance (if in good credit standing) and grant funding. Funding procurement cycle likely to be long. <span style="float: right;">2</span>	Not practical to establish an IBU structure for one wastewater treatment works <span style="float: right;">1</span>	Not practical to establish an ME structure for one wastewater treatment works only <span style="float: right;">1</span>
		Competitive procurement – largely addressed by MFMA already. Perhaps time gains to be had	MFM Act now proscribes political involvement in procurement. Procurement procedure subject to PPF Act and municipality-specific rules. Procurement cycle likely to be long <span style="float: right;">2</span>	Not practical to establish an IBU structure for one wastewater treatment works and therefore this is not applicable <span style="float: right;">1</span>	Not practical to establish an ME structure for one wastewater treatment works <span style="float: right;">1</span>
78(1)(a)(iii)	Extent of internal re-organisation of its administration and the development of the human resource capacity required to provide a	Impact of reorganization on staff and the complexity of the staff transformation requirement	Internal business unit does not effect changes to the employer status of staff and thus assumes that staff will be retained as municipal employees. No changes to condition of service of benefits flow as a consequence of the service decision. <span style="float: right;">2</span>	The creation of an IBU does not effect changes to the employer status of staff and thus assumes that staff will be retained as municipal employees. No changes to condition of service of benefits flow as a consequence of the structural change. But not practical for one WWTW <span style="float: right;">1</span>	Not practical. Staff will have to be transferred to a municipal entity in terms of S197 of the LRA. It will create inconsistent conditions of service within the Wastewater Branch. <span style="float: right;">1</span>




Investigation in terms of Section 78(3) of the Local Government: Municipal Systems Act

MSA Section	Summary of relevant Section	Relevant Aspects	A part of a Branch with Service Delivery Agreement with external service provider (Department & SDA)	Internal Business Unit (IBU)	Municipal Entity (ME)
	service	Ringfencing (degree of) and required systems/skills	There is a need for Activity Based Costing to control costs for corporate support services. 	Not feasible to establish an IBU for one wastewater treatment works only 	Not feasible to establish an ME structure for one or three wastewater treatment works only within the current Wastewater Branch 
		Treatment of shared services	A Shared Service arrangement is only practical at a Wastewater Branch/ level but not at a Works level. 	A Shared Service arrangement is only practical at a Wastewater Branch level but not at a Works level 	A Shared Service arrangement is only practical at a Wastewater Branch level but not at a Works level 
		Governance arrangements and SDA	Proper authority – service provider relationship can only be feasible at a Water & Sanitation Service level 	Proper authority-service provider relationship is not feasible at a wastewater works level 	Proper authority-provider relationship is not feasible at a wastewater works level 

Investigation in terms of Section 78(3) of the Local Government: Municipal Systems Act

MSA Section	Summary of relevant Section	Relevant Aspects	A part of a Branch with Service Delivery Agreement with external service provider (Department & SDA)	Internal Business Unit (IBU)	Municipal Entity (ME)
78(1)(a)(iv) & 78(3)(b)(iv)	Likely impact on development, job creation and employment patterns in the Municipality	Impact on job creation?	There exists potential for job creation if synergies between Wastewater and Solid Waste Service are successfully exploited. However, this synergy is best achieved at a Branch / Department level 	There exists potential for job creation if synergies between Wastewater and Solid Waste Service are successfully exploited. However, this synergy cannot be practically exploited at a works level 	There exists potential for job creation if synergies between Wastewater and Solid Waste Service are successfully exploited. However, this synergy cannot be practically exploited at a works level. 
78(1)(a)(v) & 78(3)(b)(v)	Views of organized labour	Municipality to obtain views and attach as an addendum to main report	Views will be obtained and attached as an addendum to report 		
78(3)(b)(iii)	Views of the local community	Municipality to obtain views and attach as an addendum to main report	Views will be obtained and attached as an addendum to report 		

**Legend:**

Rating	Extent to which satisfies the needs of the Municipality
	Most Advantageous
	Moderately advantageous
	Least advantageous

**Summary of the above assessment of options:**

The three service delivery options are each feasible approaches in their own right.

However, the “Internal Business Unit mechanism” option is not a practical option for the Zandvliet, Cape Flats, and Fisantekraal wastewater treatment works. These works are a part of the Wastewater Branch, which is not a ring-fenced entity, and which forms part of the Water and Sanitation Service.

The “Municipal Entity” option is not a feasible option because each of the WWTW’s are currently part of an inter-dependent network of wastewater treatment works which form part of a branch of the Water & Sanitation Service

The remaining option, i.e. a part (or “Internal **Department**”) of the Wastewater Branch combined **with a Service Delivery Agreement (SDA)** with appropriate external service providers is a much more viable option to meet the skills constraints and broader objectives of the Wastewater Branch.

**7.4 CHARACTERISTICS OF BEST PRACTICE COMPANIES**

Successful organization’s display certain characteristics that indicate that performance can be enhanced by the following:

- Devolved decision making, responsibility and accountability;
- Multi-skilled managers;
- Continuous training and development;
- Comprehensive and continuous performance measurement;
- Self-contained business operation and resourcing;
- Clear strategic direction;
- Valued teamwork; and
- Performance related reward and remuneration

A survey of European Foundation Quality Management (EFQM) Award winning companies from 1998 to 2001 found that these companies displayed characteristics consistent with best practice organisations.

However, the above applies to relatively large ringfenced and autonomous private companies and does not apply to entities like the Zandvliet, Cape Flats, and Fisantekraal Wastewater Works, which are municipal monopoly entities and a part (or “department”) of a Wastewater Branch.

Municipal wastewater services are monopolies as a consequence of national legislation.

## 8. **LIKELY IMPACT OF MECHANISM ON THE MUNICIPALITY**

Viable institutional service delivery mechanism should promote and give effect inter alia to the following primary objectives:

- Safeguard and promote the continued financial sustainability of the Municipality;
- Provide value for money in terms of cost and benefits;
- The mechanism is implementable, practical and feasible;
- Safeguard the rights and interests of the employees within the Municipality ;
- Safeguard the rights and interests of Wastewater consumers;
- Ensuring that the service delivery option is established within the boundaries of the existing legal framework; and
- Ensure that it is affordable.

Having considered all the findings, analysis, and comparisons, the “Department” combined with a “Service Delivery Agreement” option will best meet the above objectives.

## 9. SUMMARY

The project assessment approaches, and findings are summarised below:

- The City of Cape Town Wastewater Branch embarked on a Municipal Systems Act, Section 78(3) assessment to explore alternative service delivery mechanisms for the provision of wastewater management services at the Zandvliet Wastewater Treatment Plant (WWTP), the new Fisantekraal WWTP and the thermal sludge drying plant at the Cape Flats WWTP. In doing so, it solicited the views of the public, organised labour, as well as that of the work force, as required by the Municipal Systems Act. The responses, when received, will in terms of this notice be provided as an Annexure to this report.
- The project scope is limited to three wastewater treatment works i.e. Zandvliet; Cape Flats; & Fisantekraal WWTP's within the Wastewater Branch:
  - The **Zandvliet Wastewater Treatment Works** had been operated and maintained on a private contract basis since its construction by the Provincial Administration Western Cape in ± 1988. While this private contract has expired, authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a section 78 investigation has been concluded and the outcome put in place.
  - The **Cape Flats Wastewater Treatment Plant's** private contract has expired and authority has been granted by the City Manager to extend the current arrangement on an ad-hoc basis until a Section 78 investigation has been concluded and the outcome put in place.
  - The **Fisantekraal Wastewater Treatment Works** will be commissioned around 2010/11.
- The Wastewater Branch falls under the Water & Sanitation Department organisational structure within the City of Cape Town.
- Opportunities for operational improvements have only been considered for the Zandvliet & Cape Flats operations as the Fisantekraal plant has not yet been commissioned.
- The Wastewater Branch has experienced turnover in highly skilled and experienced technical staff - most of the losses occurring to the private sector. A part of the problem is the lack of competitiveness with regards to remuneration; advancement opportunities; and lack of job satisfaction in a

bureaucratic environment. The Wastewater Branch is currently experiencing a shortage of skilled and experienced staff.

- The outsourced services provided at Zandvliet and Cape Flats are generally less expensive than the internal services provided at similar sized wastewater treatment plants within the Wastewater Branch.
- The City has undergone numerous organisational restructuring over the years resulting in a general “change fatigue”.
- The City operates in a highly unionised environment.
- Opportunities exist to exploit synergies in bio-energy; waste minimization; and environmental management between the Wastewater Branch and the Solid Waste Management Department.
- Given the viable options available in terms of the MSA, the option which best meet the needs of the Wastewater Branch is the “Department combined with a Service Delivery Agreement” option. The reasons are as follows:

- The “Internal Business Unit” option is not a feasible option because each of the WWTW’s are currently part of an inter-dependent network of wastewater treatment works which form part of a branch of the Water & Sanitation Service. Neither the Wastewater Branch or the Water & Sanitation Service are financially or operationally independent of the City;
- The Organ of State Option is not a viable option given the significant legislative constraints in transferring assets from a municipal entity to a non-municipal entity and also because of the reasons stated for the Internal Business Unit above;
- The Municipal Entity Option is not a practical option for the same reasons as stated in the case of the Internal Business Unit option above;
- The Public-Private-Partnership option is not a practical option for the same reasons as stated in the case of the Internal Business Unit option and the fact that the City has already raised the capital costs required for the relevant WWTW’s
- Opportunities exist to exploit synergies; develop economy of scale benefits; and create jobs in terms of bio-energy; waste-minimization; and related environment management initiatives between the Wastewater Branch and Solid Waste Management

Department. These opportunities will be best facilitated with a “Department with a Service Delivery Agreement” option.

## 10. SECTION 78(3) RECOMMENDATIONS

Having considered the totality of the findings, assumptions, and assessments contained in this report, the Keith Roman Consortium recommends the following:

**10.1** “A Department” combined with “A Service Delivery Agreement with any other institution, entity or person legally competent to operate a business activity”, as defined by the Municipal Systems Act, is the best option for the Wastewater Branch. The option provides the Wastewater Branch the opportunity to establish a Service Delivery Agreement with a legally constituted company which is able to provide the necessary services at the Zandvliet, and/or Cape Flats, and/or Fisantekraal Wastewater Works;

**10.2** Appropriate external service provider/s be contracted to provide the Operation and Maintenance services for the whole of the Zandvliet Wastewater Treatment Works and the Operation and Maintenance services for the sludge Thermal Drying Plant at the Cape Flats Wastewater Treatment Works;

**10.3** The current Zandvliet and Cape Flats WWTW’s Service Delivery Agreements be reviewed and updated in order to ensure compliance with municipal procurement requirements and to ensure that the Wastewater Branch establishes the appropriate capacity to manage and monitor compliance with the wastewater treatment requirement’s; Section 81 of the Municipal Systems Act, and the City’s procurement policy agreement;

**10.4** A new service delivery contract , including the external service provider specifications, be drafted and that suitable external service providers be contracted to provide the Operation and Maintenance Services for the Fisantekraal Wastewater Treatment Works;

**10.5** The Wastewater Branch establishes appropriate structures to exploit synergies between itself and the City’s Solid Waste Management Service in terms of waste minimization; bio-energy; and environmental health management services.

**10.6** The Wastewater Branch establishes appropriate capacity to monitor the performance of the Service Provider to ensure compliance with the Service Delivery Agreement in accordance with wastewater treatment requirements; Section 81 of the Municipal Systems Act; and the City’s procurement policy.

**References:**

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5. *5 Year Plan for Cape Town-Integrated Development (IDP) 2007/2008 – 2011/2012.*
6. *Section 78 of the Municipal Systems Act, Act 32 of 2000.*
7. *Water Services Development Plan- Review of the WSDP October 2003.*
8. *Zandvliet Wastewater Treatment Works – Expenditure Summary 2007/2008.*
9. *Cape Flats WWTW – Expenditure Summary 2007/2008.*
10. *Wastewater Treatment Operating Budget: As at June 2008.*
11. *Water Service Budget 2008.*
12. *Geographical Maps: Location of Wastewater Treatment Works.*
13. *Agreement for Cape Flats Wastewater Treatment Works.*
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16. CSIR Report: The State of Municipal Infrastructure in South Africa and its Operations and Maintenance.
17. A guide to the National Water Act (No 36 of 1998)
18. Wastewater By-law 31<sup>st</sup> May 2006.
19. Long-term water conservation and Water Demand Management Strategy – April 2007.
20. Waste Management Policies and Guidelines.
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22. City of Cape Town Integrated Development Plan 2009/2010.
23. The Municipal Systems Act (Act 32 of 2000)
24. The Municipal Finance Management Act.
25. Previous MSA Section 78 reports undertaken at the City of Cape Town.
26. City of Cape Town: State of the Environment Report – 2008.

**ANNEXURE A: VIEWS OF THE COMMUNITY; ORGANISED LABOUR AND  
OTHER STAKEHOLDERS IN TERMS OF THE MUNICIPAL SYSTEMS ACT**