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DECLARATION

I, Shehaamah Mohamed hereby declare that this dissertation is my original work and that to the best of my knowledge it has not been wholly or in part submitted to any other University for the award of a Degree or a Diploma. Where other texts have been used, the sources have been acknowledged.

signed

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Date: 18 November 2003

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GLOSSARY AND DEFINITIONS

SANITATION SERVICES: The collection, removal, disposal or treatment of human excreta and domestic wastewater, and the collection, treatment and disposal of industrial wastewater where this is done by or on behalf of a water services authority. This includes all the organisational arrangements necessary to ensure the provision thereof including, amongst others, appropriate health, hygiene and water use education, the measurement of consumption, the associated billing, collection of revenue and consumer care.

WATER SERVICES: Water supply and sanitation services, or any part thereof.

WATER SERVICES AUTHORITY: Any municipality responsible for ensuring access to water.

WATER SERVICES PROVIDER: Any person who has a contract with another water services provider to sell water to that provider.

WATER SUPPLY SERVICES: The abstraction from a water resource, conveyance, treatment, storage and distribution of potable water ... where such water is provided for by a water services authority to consumers.

WATER SERVICES SECTOR: The abstraction from a water resource, conveyance, treatment, storage and distribution of potable water, water intended to be converted to potable water and water for industrial or other use, where such water is provided by or on behalf of a water services authority, to consumers or other water services providers. This includes all the organisational arrangements necessary to ensure the provision thereof including, amongst others, appropriate health, hygiene and water resource use education, the measurement of consumption and the associated billing, collection of revenue and consumer care.

WATER USE: As defined in section 21 of the Water Services Act

WATER USER SECTOR: Agricultural, industrial, commercial, recreational and domestic water users.

INTEGRATED DEVELOPMENT PLAN: A plan aimed at the integrated development and management of the area of jurisdiction of the municipality concerned in terms of its powers and duties.

LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CMA	Cape Management Area
CMC	Cape Metropolitan Council
CSIR	Council for Scientific and Industrial Research
CCT	City of Cape Town
DWAF	Department of Water Affairs and Forestry
IDP	Integrated Development Plan
IMEP	Integrated Management Environmental Policy
IUCN	World Conservation Union
NWA	National Water Act
NWRS	National Water Resources Strategy
WSA	Water Services Act / Water services Authority
WSDP	Water Services Development Plan

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ABSTRACT

Water is recognized as an indispensable resource and a public commodity, which has to be regulated in order to meet the interests of all users, whether they get their water from rivers, the sky, or underground.

Yet more than one billion people globally do not have adequate access to potable water supply services and nearly 2.5 billion people are without adequate access to basic sanitation services. In Africa, more than 38% of the population does not have access to a safe water supply and 40% does not have access to adequate sanitation services.[1]

South African Water law has undergone political transition since the adoption of the new dispensation in 1994. A number of legal instruments have sought to ensure access to safe water and sanitation for the majority of the country's people. Despite these legal transformations, the reality is that clean water and safe waste disposal remains a problematic area. It is imperative that the laws governing water reflect the economic, social and physical context of the country. Water legislation should therefore be effective instruments that are beneficial to all water users.

Chapter 3 of the Constitution describes Government in South Africa as consisting of National, Provincial and municipal spheres which are not only distinctive but also **interdependent** and **interrelated**. It provides that all spheres of Government and all organs of State must cooperate with each other in mutual trust and good faith by co-ordinating their actions and legislation with each other. Co-operative governance and integration are not only policy matters - they are constitutionally mandated[2].

Although funds are allocated to government institutions to satisfy basic constitutional rights, local municipalities are experiencing tremendous challenges with regards to water services. It is suspected that this could be due to lack of adequate management and wastage of funds.

This paper attempts to address these issues by examining the enabling conditions of existing South African water law and its implementation by the appropriate authorities.

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[1] Strategic Framework for Water Services, September, 2003

[2] White Paper on a National Water Policy for South Africa, 1997 at 12

The Cape Town Municipality's management over water supply and services is included in this study. The research will attempt to expose any shortcomings that might be prevalent in the new water law. The water allocation mechanism of the transformed water legislation and the water demands within various competing water user sectors of the community, such as those pertaining to **agriculture and industry**, will also be explored.

The post apartheid policy frameworks and institutional arrangements of South African Water law in improving water productivity will in turn, be evaluated.

The research will illustrate the context within which South Africa's water law has been reformed by using local authorities, namely those under the management of the **Cape Town Municipality.**

The City of Cape Town is a brand new, single metropolitan structure, which is an amalgamation of the previous 6 metropolitan local councils (MLCs), namely Blaauwberg Municipality, City of Cape Town, City of Tygerberg, Helderberg Municipality, Oostenberg Municipality, South Peninsula Municipality and the Cape Metropolitan Council and takes over their responsibilities for the delivery of services throughout the metropole.

A detailed study of the laws and rule - making, policies and institutional arrangements of the municipality will be evaluated against the competing water user demands from various sectors in the community. The importance of the **Integrated Development Plan** formulated by local municipalities and **Water Services Development Plan** will be discussed.

The underlying question that would ultimately be addressed is: Are the values and principles upon which the new society is based adequately entrenched and implemented in the innovative approaches and legal instruments of post - apartheid South African water law? To answer this question, the provisions of relevant water legislation, including local authority by – laws should be applied to **problematic areas** experienced by municipalities.

CHAPTER ONE

Legal and Political History of Water in South Africa

INTRODUCTION AND PROBLEM STATEMENT

Clean water and sanitation is the most fundamental and compelling human need. The phrases " **water use"** and **"water user sector"** permeate the entire discussion which follows; therefore a clear description of these terms is necessary to understand and grasp the main argument.

Having moved into the 21st Century, the use to which we, as a society has put our water, will come under intense scrutiny and intensifying management.

The **National Water Act's** definition of water use, in **section 21**, is very broad. It relates to the consumption of water, as well as to activities which may affect water quality and the condition of the resource itself. Water use includes:-

- Taking (abstracting) water from a water resource (s21(a));
- Storing water (s21(b));
- All aspects of the discharge of wastes into water resources:-
- Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit (s21(f));
- Disposing of waste in a manner which may detrimentally impact on a water resource (S21(g));
- Disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process (s21(h));
- Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the safety of people (s21(i));
- Making changes to the physical structure of rivers and streams:-
- Impeding or diverting the flow of water in a watercourse (s21(c));
- Altering the bed, banks, course or characteristics of a watercourse (s21(j));
- Certain activities which may affect the quantity or quality of water in the resource:-
- Engaging in a stream flow reduction activity contemplated in section 36 (s21(d));

The use of land for afforestation for commercial purposes is the only stream flow reduction activity declared thus far. The Department will however investigate other land-based activities and where, at a local, catchment or regional level they are demonstrated to result in a significant reduction in stream flow, declare them as stream flow reduction activities in accordance with section 36.

- Engaging in a controlled activity identified as such in section 37(1) or declared under section 38(1) (s21(e)); and
  Using water for recreational purposes (s21(k)).

The existing South African legal understanding of water use is based on two important ideas:

a link between the right to use water and the ownership of land adjacent to that water (the riparian principle), and
a separation between private and public water.

Historically, rivers were seen as being resources which belonged to the nation as a whole and were available for common use by all citizens, but which were controlled by the state in the public interest. These principles fitted in well with African customary law which saw water as a **common good** used in the interest of the community. The distinction between public and private law was also made in terms of Roman law. Private water, drawn from small streams or wells, gave too little water to have any potential for communal benefit, and since water could only be taken from wells by hand, the definition of underground water as private can easily be understood.[3]

The system of **riparian rights** (as found in the existing Water Act (54 of 1956 resulted in the idea of a river from which all adjacent landowners could take their share. In addition, however, because of the uncertainty and extremes of water levels in South African rivers the ideas of "normal" flow (which would be divided between the landowners), and "surplus" flow (where, in flood times, riparian owners could take as much "surplus" as they were able to use beneficially) were introduced[4]. For many years, water users **(urban and industrial)** who did not have access to water as a result of land ownership could only get access to water through a Water Court application (with the limitation that

[3] White Paper on a National Water Policy for South Africa, 1997 at 14
[4] *Ibid*

they meet their needs without affecting the allocations of riparian owners), or by buying land with access to water. These problems were addressed in some measure by the Water Act 54 of 1956, which provided for the establishment of Government Water Control Areas in which, in certain circumstances, the Minister could override riparian allocations.

Further state intervention was allowed for in the creation of legal controls on the amount of water that could be stored or taken from a water resource, on afforestation, and on the construction of farm dams. This was the result of a greater capacity among farmers to intercept and store water in dams, which could impact badly on water users further downstream.

In spite of these limited reforms, access to water remained heavily slanted in favour of a privileged minority of private land owners.

Why the need for water user sectors?

The South African government has to balance the demand for water, therefore, amongst different users of the resource. Hence, the interests of domestic, industrial, commercial, agricultural as well as farming sectors must be balanced amidst the growing demand for a scarce resource. The task of water managers is now more intricate as it is no longer possible to simply meet the demands of various users. The key focus of water management is thus to promote the optimum use of water. Pressure on the resource is increasing which means that water has to be limited in order to make water available to new users without jeopardizing the interests of existing users.

New approaches to water management will be needed. These will have to focus on the way in which water is used (efficiency, effectiveness and demand management) in each user sector rather than simply on predicting, planning and supplying its water needs[5].

The key sectors include:

agriculture, (both irrigated and rain-fed agriculture as well as forestry) which is currently the largest user of water although it does not demand as high a reliability as other sectors;

- **industry,** (including manufacturing, mining and power generation) users whose total consumption is not so great but whose requirements for quality and

[5] Ibid

reliability as well as whose impact on quality through land use and waste discharges impose considerable pressures on the resource;

- **domestic and municipal users**, whose water use and impact on water quality is growing rapidly due to the expansion of services and the improvement of service standards;

  recreational and ecotourism uses, which are growing and have high quality standards to protect human health and sometimes require large allocations as well as controls to protect habitat in the case of ecotourism development.[6]

RESEARCH PROBLEM

The challenge of water resource management is to find the balance between the **use** of the resource, as a basis for the livelihood of increasing populations, and the **protection** of the resource, to sustain its function and characteristics. The main challenges which local authorities face are: Securing water for people, securing water for food production, developing other job creating activities, dealing with the variability of water in time and space and managing risks.

Additional problems experienced by local municipalities are the lack of funds. This could have a serious effect on the management of water services. Certain municipalities indicated in a recent study that they had limited access to equipment and infrastructure for water. This dilemma shows a decline in water resource management[7].

Other areas of specific need and problems relevant to the South African context are that some of the restructured Local Authorities serve large and widespread areas. The equipment and systems installed must be capable of serving these large areas.

However, the key issue is trying to balance the interests of competing user sectors.

It can be concluded that optimum utilization and management of the available water supplies is essential.

[6] **National Water Policy op cit 20**

[7] *www.watersertvices.gov.za /municipalities*

RESEARCH HYPOTHESIS

Based on recent statistics, it is shown that municipalities lack sufficient funds (in the majority of cases, this is due to wastage), are unable to manage risks related to water supply, have limited access to equipment and infrastructure for water and are generally experiencing problems in serving widespread areas.
It is foreseen that this case study will prove that the City of Cape Town Municipality has poor focus on the communities, whom it exists to serve - the City needs to focus on the needs of the public and how best to meet and satisfy these needs in most rural areas, especially in unplanned settlements. Its control over water management and over financial resources will be assessed.

RESEARCH METHODOLOGY

Relevant primary sources such as national legislation, regional instruments and international practices will be extensively used. Official materials of relevant bodies as well as reports and selected case laws will be consulted. Reports on surveys conducted in the relevant areas as well as recorded statistics will be examined. I shall also be conducting interviews with selected departmental heads to gain adequate and accurate insight into problematic areas experienced by the relevant authorities.

BACKGROUND

Apartheid policies left South Africa with a great disparity in wealth and access to both service and natural resources. Under apartheid, the white minority had access to a high level of services such as *inter alia* water, sewerage and housing. These services were, in most cases, equal to the services provided in the developed world. The majority of the Black population, on the other hand, had little or no access to basic water and sanitation.

Preceding the new dispensation in 1994, the lack of access to services was exacerbated by the lack of access to natural resources. "Although the South African Water legislation was not in itself, racist, access to water was linked to ownership of land through the concept of riparian rights, and "private" ownership of groundwater or small tributaries found on or under private land. Race based access to land therefore resulted in race based access to water, and the natural resources of the country were concentrated in the hands of a small, white minority ".[8] Under the old Water Act of 1956, the black population in South Africa suffered, therefore, under a double deprivation in relation to water: lack of water services was compounded by a lack of access to water for economic purposes, including irrigated agriculture.

South Africa is going through a period of profound transition as it steps from the days of minority white rule to democratic government in which all the citizens of the country have a right of access to basic services.

Such a transition is difficult as before 1994 the country was fragmented along lines of colour with blacks being segregated into dormitory townships which had no economic base or homelands which were generally situated on the poorest agricultural land and had little or no mineral reserves which could create wealth. The majority of the residents considered **local government** where it did exist, illegitimate. [9]

Development, when it did happen, was in a paternalistic manner whereby decisions were made in remote offices on how to provide water and sanitation for the rural people, without asking them what they wanted or could afford and this has led to a legacy of unsustainable water projects, no cost recovery and the expectation that the government would provide.

During the 60's and 70's decent education was denied to the majority of South African citizens but even the education provided to the privileged in South Africa did not encourage free thinking and entrepreneurialism as this would have encouraged people to challenge the foundations of the apartheid state.

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[8] Schreiner, Barbara, & Naidoo, D *Water as an Instrument for Social Development in South Africa.*

[9] Holden, Richard *Community Management: The Way Forward, The South African Experience* 2000 accessed at < www.water demand management/ docs /water supply >

On 27 April 1994 South Africa elected its first democratic National and Provincial Governments followed by local Government elections in November 1995 and April 1996. The first democratic local government elections ushered in a period of transformation whereby national government sought to develop legislation, which would produce strong viable local government. South Africa's Constitution[10] has introduced the concept of spheres rather than tiers of government. Distinct roles and responsibilities are assigned to the various spheres of government, service delivery being at local government level. It is the responsibility of the other spheres to monitor and regulate. This is a radical departure from pre - 1994 when policy was dictated from national government level. Therefore in South Africa, we have had a radical change in local governance. In many instances people have had local government for the first time, which in rural areas is often institutionally weak whilst provincial and national officials are required to hand over powers to local government.

At the dawn of democracy in South Africa there were an estimated 12 million people or more without adequate water supply services[11] and nearly 21 million people without adequate sanitation services[12]. However, our ability and accompanying responsibility to address services backlog, is greater than the majority of developing countries. Inequalities in water services in South Africa are due to the water regime's historical roots.

On 5 December 2000, when local government elections were held for the second time, the new integrated municipalities were formed which brought functional areas together and pooled sufficient expertise to enable them to function. These elections introduced a further two-year period of transition as the new municipalities integrated their services and sorted out individual roles and responsibilities. Local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development.[13]

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[10] Act 108 of 1996.
[11] *Water services Strategy, loc cit.*
[12] Ibid
[13] Agenda 21, s 28 (1).

For South Africa, political transition has provided a window of opportunity for the radical transformation of the country's water law. The Democratic government is committed to address the wrongs of the past in relation to access to water and water services.

The new water law in the form of policies and legislation as well as strategies has been shaped to cope with the pressures of economic growth in a situation where water supplies and water demand has been unevenly distributed. The new policy and legislative tools have enabled the government to make some major positive changes pertaining to access to water and water services in South Africa. Since 1994 the government has brought water services to at least 8 million people in both rural and urban areas[14].

The Department of Water Affairs and Forestry has over the past few years put in place legislation, policies, and programs in order to give force to the constitutional mandates of the right of access to sufficient water[15] and the right to an environment that is not harmful to our health and well being[16]. Much of these have involved consultation with a wide variety of people, consultation with community organizations, with trade unions, with farmers and industrialists, with scientists and with environmentalists. Arising from the process of consultation we now have a **White Paper on a National Water Policy for South Africa of 1997, the Water Services Act (passed in 1997) and the National Water Act (passed in 1998).**

The **National Water Act,** following on from the Reconstruction and Development Programme, has substantially altered the framework for access to untreated bulk water. In particular, the legislation has divorced access to water from land ownership in the rural areas, and has removed the previous expectation of permanent rights to water. Under the National Water Act all water is allocated through time limited licences. The Water Services Act specifically provides for a distinction to be made between the role of government (as the authority for ensuring access to water services) and that of direct service provision.

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[14] www.dwaf.gov.za
[15] Section 27 (1) (b) of the Constitution.
[16] Section 24 (a) loc cit

The **Water Services Act, 1997 (Act 108 of 1997)** , with regards to water and sanitation, provides for:

- the rights of access to basic water supply and basic sanitation
- the setting of national standards and of norms and standards for tariffs
- water services development plans
- a regulatory framework for water services institutions and water service intermediaries
- the establishment and disestablishment of water boards and water service committees and their powers and duties
- the monitoring of water services and intervention by the Minister or by the relevant Province
- financial assistance to water services institutions
- certain general powers of the Minister
- the gathering of information in a national information system and the distribution of that information

The post – Apartheid South Africa legal regime, nevertheless, finds itself having to adopt new coping strategies to deal with the escalating demand for water. This water crisis has culminated into an unmanageable dilemma and sanitation is one of the many competing water user demands. The availability and provision of good quality water to citizens for basic human needs and for economic development is a problem which South Africa is currently sharing with a number of neighbouring states.
Based on population trends and patterns of change in water use, South Africa will reach the limit of its economically usable, land-based water resources sometime between the years 2020 and 2030.[17]

According to a newspaper article[18] , Minister of Water Affairs and Forestry, Ronnie Kasrils, announced that five million South Africans still lack access to basic water supply. He admitted that although 6.2 million people have received access to water since 1999, there is much room for improvement. He further emphasises that closer communication

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[17] Ashton, PJ and Haasbroek, B, *Water Demand Management and Social Adaptive Capacity: A South African Case Study,* Division of Water, Environment and Forestry Technology, CSIR, South Africa 2000
[18] dated 02 September 2003,

with local municipalities would be a prerequisite to the provision of sufficient water services in the Cape Town region.

An adequate supply of sufficient water of an appropriate quality is necessary to promote justifiable social and economic development. The new approach to water management supports real development by encouraging economic growth, actively promoting equity and ensuring that water is used in an environmentally sustainable manner.[19]

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[19] ***www.google.com / water and the Constitution***, accessed on 26 October 2003

CHAPTER TWO

THE POLICY, STATUTORY AND INSTITUTIONAL FRAMEWORK FOR WATER SERVICES AND SUPPLY

2.1) WATER SERVICES: BRIEF OVERVIEW

The focus of this research is to determine the impact which the transformed water law has had on competing water user rights within the Cape Town region. A detailed study of water services and delivery in terms of legislation by the relevant authorities is therefore required in order to ascertain this objective.

The term **"water services** "refers to water supply services as well as sanitation services.[20] In South Africa, this concept includes regional water schemes, on – site sanitation and the collection and treatment of waste water. Our country comprise of approximately 46 million citizens [21] who utilize domestic water services of some kind.

The key organisations involved in water services are the **Department of Water Affairs and Forestry, water boards, municipalities, community – based organizations and public or privately owned companies.** The role of water services is to provide an enabling policy and regulatory environment to ensure the efficient, effective and sustainable provision of water services by local government, as well as providing guidance and assistance to the water services sector institutions in terms of best practice and innovation.

The water services **sector** constitutes any organization that provides water services, consumers and households using water services, all employees in these organizations and their related representative structures, and professional bodies, contractors, the manufacturing industry and other organizations involved in supporting activities such as research.[22]

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[20] Water Services Act, 108 of 1997
[21] *White Paper on Water Services* , October 2002
[22] Ibid

An estimated **overall size of the water services sector in South Africa** provided in the Strategic Framework for Water Services of September, 2003 is indicated in **figure 1:**

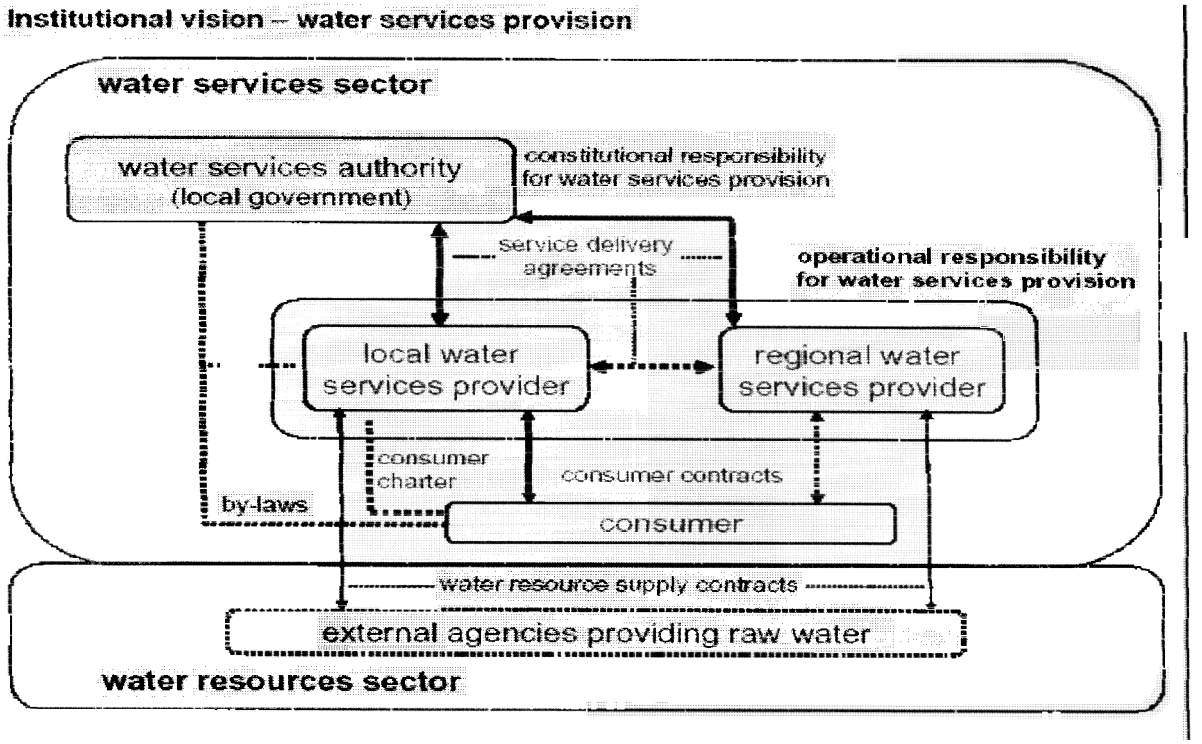
	DWAF	Water boards	Municipalities	Total
Assets (R billion) [b]	40	12	50	102
Investment (R billion pa) [c]	1,2	1,0	2,8	5,0
Turnover (R billion pa) [d]	1,7	3,5	6,8	12,0
Staff numbers [e]	8 000	8 000	40 000	56 000
Volume (million kl pa) [f]				4 600

Notes: a) All data are coarse estimates only. b) Book value; data generally are neither consistent nor reliabl
c) Estimates of capital investment; comprehensive reliable data are not kept. d) Water sales only.
e) Estimates of water services-related staff only. f) Urban, rural, mining and bulk industrial water use.

2.2) IMPORTANT DEFINITIONS

The terminology used within the framework of this particular aspect of water law has to be clarified.

The water services sector comprise of various bodies that have been allocated certain responsibilities. These are indicated in **figure 2.**



Water supply services means the abstraction from a water resource, conveyance, treatment, storage and distribution of potable water, water intended to be converted to potable water and water for industrial or other use[23] , where such water is provided by or on behalf of a **water services authority**, to consumers or other **water services providers**. This includes all the organizational arrangements necessary to ensure its provision including, amongst others, appropriate health, hygiene and water resource-use education, the measurement of consumption and the associated billing, collection of revenue and consumer care.

Sanitation services means the collection, removal, disposal or treatment of human excreta and domestic wastewater, and the collection, treatment and disposal of industrial wastewater where this is done by or on behalf of a water services authority. This includes all the organizational arrangements necessary to ensure its provision including, amongst others, appropriate health, hygiene and water resource-use education, the measurement of consumption and the associated billing, collection of revenue and consumer care.

As mentioned earlier, the concept **water use** is of fundamental importance for the purposes of this topic. The role of water use is to provide an enabling environment for the allocation, authorization and control of all categories of water use, that meets the objectives of equity and efficiency (optimal beneficial use), and to audit its implementation, as well as to authorize water use in the short term (before it is delegated to regions and / or Catchment Management Agencies) [24].

Water user sectors refer to the agricultural sector (which is currently the largest user of water[25]), industry, domestic and municipal users as well as domestic and ecotourism uses. The latter is a growing sector and has high quality standards to protect human health. Large water allocations are required to protect habitat in the case of ecotourism.

52% of current water use in South Africa goes to agriculture, primarily to the established white farmers. Small scale irrigation makes up 4% of the total irrigation in South Africa.

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[23] The Water Services Act of 1997 excludes water for industrial use. The definition as per the Act is restricted to potable water, but the White paper on Water Services includes all water supplied by or on behalf of a water services authority.

[24] DWAF, *Restructuring: New Organizational Structure for Branch: Policy and Regulation from 14 April 2003.*

[25] White Paper on a National Water policy for South Africa .

1.3 million ha of land is irrigated, and water constraints make it unlikely that irrigation will grow by more than a further 12% or 200 000 ha[26].

According to the Water Services Act, a **water services authority** means any municipality, including a district or local council as defined in the Local Government Transition Act[27], responsible for ensuring access to water services. In terms of the Municipal Structures Act of 1998[28], a water services authority is any municipality that has the executive authority to provide water services within its area of jurisdiction. There can be only one water services authority in a specific area. Water services authorities are **metropolitan municipalities, district municipalities and authorized local municipalities.**

A **water services provider** is defined as any person who has a contract with another water services provider to sell water to, or accept wastewater for the purposes of treatment from, that provider (bulk water services provider). The definition also includes one who has a contract (or implied contract) with a water services authority to provide water to, and/or to collect or accept human excreta or wastewater from, one or more consumers within a specific geographic area together with or without the responsibility to collect any fees that may be due (retail water services provider).[29]
The Water Services Act excludes the water services intermediary as a provider. [30] The main duty of a water services provider is to provide water services in terms of the Constitution, the Water Services Act and the by – laws of the water services authority.
Local water services providers provide water services to only one water services authority. **Regional water services providers** operate regional infrastructure (crossing water services authority boundaries) and provide water services to more than one water services authority. [31]

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[26] *Schreiner, op cit 9. The figures do not take into account the potential impact of increased water efficiency and water demand management in making more water available for irrigation, industry or domestic use.*
[27] Act 209 of 1993
[28] Act 118 of 1998
[29] White Paper on Water Services ibid.
[30] Definition xxii
[31] Strategic Framework for Water Services, 2003.

The significance of the abovementioned terms will be discussed within the ambit of the water services sector. However, the relevant instruments acting as the **legislative mandate** for this basic need have to be analysed.

2.3 THE CONSTITUTIONAL FRAMEWORK

Our legislation, policies, programs and activities are borne from the **Constitution**. It is a part of the process of putting our Constitution into practice in South Africa. It ensures that the rights of all South Africans, as enshrined in the Constitution, are put into practice in a way that improves the lives of all South Africans, particularly the poor and marginalized majority of our people.

The Constitution, recognized as the highest law in the land, expresses the wishes and desires of those who created it[32]. This document requires that all law, including water law, must follow its spirit and letter and should give force to the social, moral and political values which it aims to promote.

The fundamental principles for a new water law in South Africa attest to this statement in terms of the first principle which reads as follows: "The water law shall be **subject to and consistent with the Constitution in all matters** including the determination of the public interest and the rights and obligations of all parties, public and private, with regards to water. While taking cognisance of existing uses, the water law will **actively promote the values enshrined in the Bill of Rights**."

Given a legal and political history where basic human rights in general have suffered under an Apartheid regime, resulting in the fact that water rights and water law were considered peripheral, the Constitution is the best example of political as well as legal transformation. This democratic document has enabled citizens "inherent dignity and the right to have their dignity respected and protected ".[33]

[32] *White Paper on a National Water Policy for South Africa, 1997*
[33] section 10

Section 24 lays down the right to a safe and healthy environment, free from pollution and ecological degradation. Furthermore, the right of **access to water** is entrenched in section **27(1)(b).** This falls within a cluster of socio – economic rights providing for *inter alia,* health care services[34] and social security and social assistance[35].

The phrase " right of access " places a duty on the state to provide the beneficiary with an " opening " to the right.[36] This implies that the beneficiary must be given the opportunity to realize the right. The beneficiary is also required to be an active participant in the provision, use and protection of the right. **Section 27 (2)** requests the state to take " reasonable, legislative or other measures, within its available resources, to achieve progressive realization of this right". Although water cannot be provided to everyone immediately, the duty is on the state to begin immediately to take steps towards the full realization of the rights contained in Chapter Two of the Constitution[37].

The state is required to take deliberate, concrete and targeted steps towards meeting its obligations and this includes **enacting legislation and policies** with the objective of making water **accessible to everyone**; creating structures to assist people to gain access to water and making water **affordable to everyone** and ensuring that existing water access is not eliminated. Legislation pertaining to water rights has therefore been transformed to give effect to these Constitutional provisions.

2.3.1) The Constitutional responsibilities of the different spheres of government

Each sphere of government has the general responsibility of realizing these obligations. Entrenched in the Constitution, a complex division of responsibilities between the three spheres of government is outlined. An important prerequisite to determining the efficiency of water services within the confines of this research is to pose the questions: Who does what? What are the responsibilities of the various spheres of government in providing access to water?

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[34] Section 27 (1) (a)
[35] Section 27 (1) (c)
[36] De Visser, Cottle and Mettler, *Realizing the Right of access to water: Pipe dream or watershed?; (2003) ;7;* In Law, Democracy and Development, Journal of the Faculty of Law of UWC, 27; Butterworths
[37] The Bill of Rights.

a) The Role of National Government

National government has the constitutional responsibility to **support and strengthen the capacity of local government in the fulfilment of its functions, and to regulate local government to ensure effective performance of its duties.** [38] This government may **develop legislation** governing the provision of water and sanitation services. National legislation must **define the different types of municipality** that may be established within each category (A, B or C). [39] National government should also, via legislation, establish the criteria for determining when an area should have a single category A municipality or when it should have municipalities of both category B and category C;[40] establish criteria and procedures for the determination of municipal boundaries by an independent authority; [41] and make provision for an appropriate division of powers and functions between municipalities when an area has municipalities of both category B and C.[42] This legislation must take into account the need to provide municipal services in an **equitable** and **sustainable** manner.[43]

A municipality's right to govern the local government affairs of its community is subject to national and provincial legislation, as provided for in the Constitution.

National as well as Provincial Government has the right to intercede where water service authorities fail to plan and implement strategies for the universal provision of basic services and where they fail to provide efficient, effective and sustainable services.[44]

Provincial government must implement national legislation within the functional areas listed in Schedule 4 of the Constitution[45] . This sphere of government also has the right to intervene when a municipality fails to fulfil its executive obligations with regard to legislation.

Section 152(1)(b) of the Constitution states that one of the objectives of local government is to ensure the provision of services to communities in a sustainable manner and Schedule 4B specifically identifies water and sanitation services (limited to

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[38] Sections 154 (1) and 155 (7)
[39] Section 155 (2)
[40] Section 155 (3) (a)
[41] Section 155 (3) (b)
[42] Section 155 (3) (c)
[43] Section 155 (4)
[44] Ibid
[45] This includes water and sanitation services.

potable water supply systems and domestic wastewater and sewage disposal systems) as a local government function. The provision of access to water services is thus a **functional area of concurrent national and provincial legislative competence**.

National government is also mandated by legislation. The **Water Services Act** provides a developmental regulatory framework for the provision of water services. The Act enables national government to set **national norms and standards** for tariffs[46] to ensure efficient, reliable, affordable and equitable water services, while building capacity in and assisting local government (defined as water services authorities in the Act) to perform its functions.

(aa) The Role of the Department of Water Affairs and Forestry (DWAF)

DWAF has the responsibility of operating and maintaining water services works and implementing new water services infrastructure. It operates through regional offices and is the department responsible for both **water resources management** and **water services provision.** The Strategic Framework for Water Services foresees this department as having additional responsibilities in the future:

- In terms of **policy** DWAF would have overall responsibility for the management of water resources and water sector policy. This includes development and revision of **national policies, oversight of all legislation impacting on the water sector (including the setting of national norms and standards), coordination with other national departments on policy, legislation and other sector issues, national communications, and the development of national strategies to achieve water sector goals.**[47]
- DWAF will also have to monitor water sector performance as well as make regulatory interventions in order to improve performance and to ensure regular compliance with norms and standards.

  Support to other water services institutions is a constitutional duty that should be undertaken by DWAF.The nature of the support will depend on the specific needs and requirements of local government and water institutions.

  DWAF is currently both the sole shareholder and primary regulator of water boards. The short term plan for this duty is that the shareholding and regulatory roles of DWAF will be more clearly separated and strengthened.

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[46] section 10 of the Act.
[47] *Strategic Framework Loc cit.*

In *Government of the Republic of South Africa and Others V Grootboom and Others*[48] the Court stated that all spheres of government should bear a responsibility towards realizing socio – economic rights. It should, however, be noted that the right of access to water places a distinct responsibility on national government to ensure that its water delivery strategy enables local governments to deliver potable water and sanitation services. [49]

b) <u>The role of Provincial Government</u>

As indicated earlier, Provincial government, together and jointly with national government, has the constitutional responsibility to support and strengthen the capacity of local government in the fulfillment of its functions, and to regulate local government to ensure effective performance of its duties. Provincial public works departments may supervise the construction of water and sanitation infrastructure on behalf of other departments in the province.[50] In terms of the Constitution, provincial legislation must determine the different types of municipality to be established in the province.[51] Each provincial government must establish municipalities in its province in a manner consistent with the legislation enacted by legislation or other measures and must (a) provide for the monitoring and support of local government in the province and (b) promote the development of local government capacity to enable municipalities to perform their functions and manage their own affairs.[52]

The national government and the provincial governments have the legislative and executive authority to see to the effective performance by municipalities of their functions in respect of matters listed in schedule 4 and 5, by regulating the exercise by municipalities of their executive authority [53]. This is referred to in section 156 (1) [54].

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[48] 2001 (1) SA 46 (CC), 2000 (11) BCLR 1169 (CC)
[49] At para 82
[50] Ibid
[51] Section 155 (5) of the Constitution.
[52] Section 155 (6)
[53] Section 155 (7)
[54] Discussed under role of local government.

c) The Role of Local Government

The primary responsibility for water services provision rests with local government. In terms of **section 84 of the Municipal Structures Act,** the responsibility for providing water services rests with district and metropolitan municipalities. However, the Act allows the Minister of Provincial and Local Government Affairs to authorize a local municipality to perform these functions or exercise these powers. The district (or authorized local) municipality is the water services authority as defined in the Water Services Act.

The Constitution provides for specific **powers and functions** of municipalities. These are reflected in section **156** of the Constitution. A municipality has executive authority in respect of, and has the right to administer – (a) local government matters listed in part B of Schedule 4 and part B of Schedule 5 and (b) any other matter assigned to it by national or provincial legislation.[55] The municipality may make and **administer by – laws** for the effective administration of the matters which it has the right to administer. [56] According to subsection 4, national and provincial governments must assign to a municipality, by agreement and subject to any conditions, the administration of a matter listed in **Part A of Schedule 4 or Part A of Schedule 5** which necessarily relates to local government if the matter would most effectively be administered locally and if the municipality has the capacity to do it. [57]

Since the local government is the focus of this paper, its responsibilities regarding water delivery as mandated by legislation and other legal instruments will be discussed in detail in chapter 3.

2.4) ASSESSING POLICIES AND LEGISLATION FOR WATER SERVICES

Policies establish the vision, overall goals and approach, **legislation** creates the enabling environment and **strategies** set out the detail of how the policies will be implemented in order to achieve the vision and goals. It is imperative that the policies, strategies and legislation pertaining to water services and supply be aligned with each other.

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[55] s 156 (1)
[56] s 156 (2)
[57] s 156 (4) (a) and (b)

2.4.1) LEGISLATIVE MEASURES

The basic legislative measures that embody the national standards for water and sanitation services are the **Water Services Act**[58] and the **National Water Act**.[59] National government must ensure that water is protected, used, developed, conserved, managed and controlled in a sustainable and equitable manner, for the benefit of all persons[60] . This function qualifies as a major transformation of policy. Historically, the Apartheid water regime enabled people to claim exclusive rights to water falling on private land, water pumped from boreholes etc., or they could claim so-called riparian rights to water from a public stream adjacent to their land. The National Water Act did away with private ownership of water and the riparian principle. Instead, by subjecting water use to authorisation through a system of licensing, it is recognised as a national resource that should be used for the benefit of all.[61]

The Water Services Act provides under **section 3(1)** that everyone has the right of access to basic water supply and basic sanitation. **Section 3(2)** goes on to state that every water services institution must take reasonable measures to realise these rights. "**Basic water supply**" is "the prescribed minimum standard of water supply services necessary for the reliable supply of a sufficient quantity and quality of water to households, including informal households, to support life and personal hygiene". The term "prescribed" indicates that regulations made under the Act must give further content to the term "basic water supply".[62] The Act also contains a framework for the procedures for limiting or disconnecting water supply.

The Minister has prescribed the above standard for basic water supply in regulations.[63] Regulation Three describes the minimum standard for basic water supply services as:

(a) The provision of appropriate education in respect of effective water use; and

(b) A minimum quantity of potable water of **25 litres per person per day** or 6 kilolitres per household per month:

(i) At a minimum flow rate of not less than 10 litres per minute;

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[58] Water Services Act 108 of 1997
[59] *National Water Act 36 of 1998*
[60] Section 3 (1) of the National Water Act.
[61] De Visser *et al op cit* at 8
[62] Section 1
[63] Regulations relating to compulsory national standards and measures to conserve water (Gazette 22355, *Regulation Gazette* 7079), 8 June 2001 (c).

(ii) Within 200 metres of a household; and

(iii) With effectiveness such that no consumer is without a supply for more than seven full days in any year.

The Act also requires all water service authorities (municipalities) to progressively ensure all consumers efficient, affordable, economical and sustainable access to water services. [64]

2.4.2) POLICY MEASURES

Legislative measures are not likely to constitute constitutional compliance with water services by themselves. They have to be supported by appropriate, well-directed policies and programmes that are also implemented reasonably.[65]

The **Water Supply and Sanitation Policy White Paper of 1994** (hereafter the White Paper on Water) set out the policy for the Department with specific regard for water supply and sanitation services. It defined basic water supply as a quantity of 25 litres per person per day.[66] This minimum is required for direct consumption, for food preparation and for personal hygiene. It is not, however, considered adequate for a full, healthy and productive life which is why it is considered to be a minimum.

The White Paper emphasised the importance of local government in sustainable water and sanitation development. According to the White Paper, the Department of Water Affairs had tabled legislation which enabled it to intervene with local authorities. The Minister was empowered to establish statutory Local Water Committees (LWCs) to undertake the task of local water and sanitation services where local authorities do not exist. In this manner, the Department could assist local government and not usurp its functions. [67]

In contrast, the **1994 Reconstruction and Development Programme (RDP)** provided for a short-term target of a safe water supply of 20–30 litres per capita per day within 200 metres, an adequate/safe sanitation facility per site, and a refuse removal system to all

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[64] Section 11 (1)

[65] *Government of the Republic of South Africa and Others V Grootboom and Others* 2001 (1) SA 46 (CC) , 2000 (11) BCLR 1169 (CC) at par 42.

[66] Department of Water Affairs and Forestry (DWAF) 1994 "Water Supply and Sanitation Policy White Paper" < www.gov.za/whitepaper/index.html>

[67] At 11.

urban households. The RDP went on to define a medium-term strategy of providing an on-site supply of 50–60 litres of clean water, improved on-site sanitation, and an appropriate household refuse collection system. The *White Paper on Water* is a clear departure from the standard set in the RDP. Unfortunately neither of these targets has been met: millions of people are still without water and others are receiving an inadequate supply to sustain a full, healthy and productive life.[68]

The **White Paper on a National Water Policy for South Africa, 1997**, places water within the context of the Constitution. The policy provides that the right to equality requires equitable access by all South Africans to, and benefit from, the nation's water resources and an end to discrimination with regard to access to water on the basis of race, class or gender[69]. Furthermore, its states that the reform of the water law must put in place arrangements to ensure that all South Africans gain access to sufficient water to meet basic domestic needs. This provision reinforced the measures proposed in terms of the Water Services Act to regulate water supply and sanitation services provided by local authorities.

It is also stated that water services shall be regulated in a manner which is consistent with and supportive of the aims and approaches of the broader local government framework[70] (discussed in chapter 3). While the provision of water services is an activity distinct from the development and management of water resources, water services should be provided in a manner consistent with the goals of water resources management[71]. The interests of the individual consumer and the wider public must be protected in the case of water services being provided in a monopoly situation[72].

The National Water Policy suggests that new approaches to water management will be needed. These will have to focus on the way in which water is used in each water user sector rather than simply on predicting, planning and supplying its water needs. The policy states that this focus on individual sectors requires a framework for intervention on the underlying autonomy of the user sector, and which will guide its water related activities towards an optimum and sustainable path and promote a spirit of resource

[68] De Visser *et al* at 6
[69] At 2.1.4
[70] Principle 26
[71] Principle 27
[72] Principle 28

conservation[73]. It identifies the key water user sectors [74] and emphasises the fact that unless there is a good understanding of water use in the sectors, it will be difficult to design appropriate programmes which would promote better utilization.

As mentioned above, water services include sanitation services. The **White Paper on Basic Household Sanitation, 2001** reinforces the constitutional responsibilities of municipalities to provide access to basic services and the fact that these authorities be supported by national and provincial government legislation. The way in which sanitation services are provided must take into account the growing scarcity of good quality water in South Africa. Local government should, according to this policy, assist households to improve their own sanitation. Together with the community, local government must launch health and hygiene promotion programmes.

The health, social and environmental benefits of improved sanitation is planned for and provided in an integrated way with water supply and other municipal services. Local government planning is implemented through the **Integrated Development Plans** of which the **Water Services Development Plans** (Water and Sanitation) are a component. In order to implement sanitation improvement programmes, local government must budget and source funding for these. The funding arises from various sources, including revenue collection and provincial and national government. Individual business plans will be developed for each project, in consultation with the sanitation project steering committees, elected from and by the community. The business plans will define the methods to be followed and the community contribution, required, taking into consideration the needs of specific communities. Local government will assist by providing management skills to ensure the success of projects. Health and hygiene promotion messages should be reinforced and health monitored on an on – going basis[75].

The municipality is similarly responsible for ensuring an environmentally safe approach to sanitation and for monitoring the impact of the sanitation process on the environment. The Water Services Act specifically requires that details of existing and proposed water conservation, recycling and environmental protection measures must be included in the Water Service Development Plan which is a component of the Integrated Development Plan (IDP).

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[73] Section 6.4

[74] Agriculture, industry, domestic and municipal users, recreational and ecotourism

[75] DWAF, *Sanitation for a healthy nation: Understanding South Africa's sanitation policy*, February 2002

The **White Paper on Water Services of 2003** [76] provides an overall policy orientation of government towards the water supply and sanitation sector. It was formulated seven years after the publication of the first Water Supply and Sanitation White Paper in 1994. Since then local government has undergone transformation. It is now possible for local government to assume full operational responsibility for water and sanitation services as provided for in the Constitution. This means that the role of the Department of Water Affairs and Forestry (DWAF) will change from being a direct provider to being a sector leader, supporter and regulator. Minister Kasrils [77] emphasized the importance of service delivery in his statement: " ***We have established our new municipalities. Now we have to make sure they do their job of providing services to our people, efficiently, effectively, and affordably. We have to ensure that they play their full role in creating jobs and opportunities. And they must do this in a way which allows our people to participate in building a better life for all*** ". (Minister Kasrils, 9 May 2002) This forms part of the motivation behind promulgating a new policy for water services.

The white paper is a comprehensive policy paper for the water services sector as a whole. It complements the White Paper on Basic Household Sanitation discussed above, but addresses the full spectrum of water supply and sanitation services instead of just the basic services. Policy issues regarding the institutional framework, the regulatory framework, the financial framework and integrated planning of water services are also attended to.

The policy also sets out certain goals for the water services sector. Amongst these is the objective that all **water service authorities** are accountable to their citizens, have adequate capacity to make wise choices (related to water services providers) and are able to effectively regulate water services provision. In addition water and sanitation are to be provided equitably (adequate services to all people, fairly), affordably (no one is excluded from access to basic services because of their cost), effectively (the job is done well), efficiently (resources are not wasted) and sustainably (there are adequate resources to operate, maintain, rehabilitate and expand services in the future)[78] .

It is reiterated in this white paper that water usually assumes a higher priority (for both government and users) than sanitation, but that sanitation is equally important for health.

[76] White Paper on Water services , September 2003
[77] Minister of Water Affairs and Forestry
[78] Water Services White Paper op cit 8

Education on safe hygiene practices and on the linkages between unsafe water, inadequate sanitation and disease should be integral to all water services initiatives.
A water services authority can also be a **water services provider**, both within its own area as well as by contract with another water services authority or water services provider. The City of Cape Town Municipality is described as a water services provider which provides bulk water services to other water services providers as well as retail water and sanitation services in its own area. [79]

With regards to **funding water services**, the policy estimates that R 5 billion per annum would have to be invested for adequate service delivery[80] . National government has proposed the introduction of a new **integrated municipal infrastructure grant (MIG)** to provide a formula based allocation to municipalities for providing all the necessary infrastructure (including water supply and sanitation) for poor households. When introduced, **the current water services specific infrastructure grants will be phased out.** To enable the introduction of this grant, arrangements will have to be put in place to ensure that the basic objectives of government, being equity, access and sustainability, are met. In addition there are concerns about the capacity of some municipalities to implement the projects that will be funded by the grant and the planning and implementation of regional infrastructure that crosses municipal boundaries. There will be a need to attach sector-specific conditions to the allocation and spending of the infrastructure grant and the process will be discussed with the relevant government departments and SALGA [81].
National government has the constitutional duty of providing an equitable division of revenue for local government. The allocation of this funding take into account: 1) the need to ensure that local government is able to provide basic services and perform the functions allocated to it; 2) the fiscal capacity and efficiency of municipalities and 3) the obligations of municipalities in terms of national legislation.
This equitable share is an **unconditional grant** protected by a constitutional right. However, should a local government not fulfil its constitutional responsibility of providing basic services to all its citizens whilst at the same time receiving an equitable share allocation, the local authority could expose itself to legal challenge [82].

[79] Ibid
[80] Section 5.4.1
[81] Section 5.4.2
[82] South African Local Government Association , s 5.4.3

Currently, DWAF is the provider of funds for water services. It controls approximately R 800 million for infrastructure investment and R 700 million for the operation of water services each year[83].

The white paper promotes the principle of **free basic water**. Prior to the introduction of the equitable share as part of the local government financial system, the **"user pays" principle** was one of the cornerstones for achieving the sustainability and viability of water services. The adoption of the free basic water policy has not negated this principle. On the contrary, the free basic water policy strengthens the principle in that it clearly requires consumption in excess of the basic service to be paid for while enabling free access by the poor to basic water services necessary to sustain life.
The right to basic water services in not an absolute right. It is subject to the state taking reasonable legislative and other measures, within its available resources, to achieve the progressive realization of these rights[84]. It is also subject to specific obligations such as payment for services (over and above the basic amount) and the limitation and disconnection of the service in certain circumstances.
In terms of the free basic water policy, the provision of the first 6 kilolitres consumed by a household per month is **free of charge**. The policy provides for flexibility in the application of this policy by municipalities, as the sphere of government responsible for providing water services. Municipalities are not obliged to implement the policy with immediate effect, but must take reasonable measures, within available resources, to achieve the progressive realization of the policy[85].

Water services authority responsibilities are outlined in the Water Services White Paper, although these will be elaborated on in the following chapter. Amongst these are investments in infrastructure, sustainable service provision, use of equitable share for free basic services, financial assistance to intermediaries and credit control.

A framework for **planning** by water services authorities is set out in the Water Services White Paper. The key instrument of planning is the **water services development plan**. This is designed and intended to be part of the relevant municipality's IDP and should

[83] Ibid
[84] Section 27 (2) of the Constitution
[85] White paper loc cit.

ideally be prepared as part of the same process. The key elements of the planning process are as follows:

All water services authorities must develop a water services development plan (WSDP).

A new plan must be developed every **five years** and the plan should be updated as necessary and appropriate in the interim years.

The WSDP must be integrated with the integrated development plan of the municipality, as required in terms of the **Municipal Systems Act**.

The WSDP must integrate water supply planning with sanitation planning.

The WSDP must integrate technical planning with social, institutional and financial and environmental planning.

The WSDP must integrate with the catchment management strategy.

The planning process must take into account the views of all important **stakeholders, including communities**, through a consultative and participatory process.

- The draft plan must be made available for public and stakeholder comment and all comments made must be considered when preparing the final plan.

  The contents of the WSDP must be communicated to all important stakeholders.
- A water services authority **may not deviate** substantially from its WSDP.

  A water services authority must report annually on the implementation of the plan.[86]

All water services **infrastructure** must be developed in accordance with the water services development plan and in conformity with relevant standards and guidelines.

According to the policy, national government will focus on **supporting** water services authorities over the next five years. The aim is to promote effective service delivery and to achieve water sector goals and targets. This will include water sector training and the development of guidelines and tools.

Monitoring is equally important. **Consumers** are in the best position to monitor the effectiveness of water services provision. They are the first to experience the effects of poor, inadequate or absent services. Therefore, the most important and effective

[86] Op cit at 43.

monitoring strategy for the sector is strengthening the voice of consumers, that is, providing appropriate communication channels for consumers to voice their concerns. It is the responsibility of water services authorities to put into place mechanisms for **facilitating, listening to and responding** to consumer and citizen feedback on the quality of services provided. In addition to this, consideration should be given to supporting the development of consumer organizations representing the interest of water services consumers. These organizations should also have direct representation on the **National Water Advisory Council.**[87]

Within the framework of the Constitution, National government is the overall regulator of the water services sector. It regulates access to services, technical standards, service quality, pricing, efficiency of service and investments.

The policy foresees certain major challenges for the water services sector. For instance, should all the water services assets be owned and controlled by water services authorities? What is the future role of water boards? The policies governing the transfer of DWAF – owned assets to water services authorities remains unresolved.

The ultimate question is whether local government is complying with these policies and legislation. Its implementation in this sphere of government will now be assessed.

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[87] Op cit 52.

CHAPTER THREE
THE ROLE OF LOCAL GOVERNMENT IN WATER SERVICES AND DELIVERY

3.1) CONSTITUTIONAL FRAMEWORK FOR LOCAL GOVERNMENT

Under the Apartheid Regime, local government has always been viewed as the lowest level of governance in the hierarchy, which derives its powers from national and provincial spheres. The Constitution of the Republic of South Africa strengthened local government with the same principles as those afforded to other levels of governance[88].

In terms of sections **151(3) and (4)** of the Constitution, 1996 "a municipality has the right to govern, on its own initiative, the local government affairs of its community, subject to national and provincial legislation ... [and] ... national or a provincial government may not compromise or impede [its] ... ability or right to exercise its powers or perform its functions." The Constitution entrusts local government:

- to provide **democratic** and accountable government for local communities;
- to ensure the **provision of services** to communities in a **sustainable** [89] manner;

  to promote **social and economic** development;
- to promote a **safe and healthy** environment; and
- to encourage the involvement of communities and community organisations in the matters of local government."[90]

Local government's constitutional mandate has been captured in sections **152 and 153** of the Constitution. Section 152(1)(b) instructs local government to ensure sustainable service delivery: **sustainable** service delivery means delivery in such a manner that the consumer can afford it and the supplier can provide it within its own means on an ongoing basis.[91] A continued, sustainable and improving delivery of services such as

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[88] *In terms of developmental local government, see sections 152, 153 of the Constitution.*
[89] Sustainable service delivery means delivery in such a manner that the consumer can afford it and the supplier can provide it within its own means on an ongoing basis. A continued, sustainable and improving delivery of water and sanitation is vital.
[90] Section 152 (1) – (2) of the Constitution.
[91] De Visser et al at para 3.2

water, sanitation, electricity, refuse removal and municipal health is a vital component of local government's developmental mandate. Improving the standard of living through delivery of government services and through self-empowerment (employment, social upliftment) is dependent on a productive local economy and improved social conditions[92]. By the same token, section **153(a)** stipulates that the objects of local government translate into a duty on municipalities to promote their social and economic development. Further, section **153(a)** instructs municipalities to prioritise their communities' basic needs. Section **152(1)(d)** requires the promotion of a safe and healthy environment, which connotes the provision of basic sanitation and water delivery.[93]

In terms of section **153,** municipalities are required to structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community; and to promote the social and economic development of the community.

As mentioned earlier, national and provincial governments have the mandatory duty of supporting and strengthening the capacity of municipalities to manage their own affairs, to exercise their functions and perform their functions. [94]

The Constitution establishes the following categories of municipality:

- **Category (A):** A municipality that has exclusive municipal executive and legislative authority in its area.
- **Category (B):** A municipality that shares municipal executive and legislative authority in its area with a Category (C) municipality within whose area it falls.
- **Category (C):** A municipality that has municipal executive and legislative authority in an area that includes more than one municipality. [95]

The existence of a functional, competent local government is the key to sustainable water and sanitation development. **Schedule 4 Part B** of the Constitution tasks local government with providing " water and sanitation services, limited to potable water supply systems and domestic waste – water and sewage disposal systems ". This

[92] Section 152 (1) (c)
[93] De Visser *ibid*
[94] Section 154 (1)
[95] Section 155 (1)

implies that local government would be responsible for the full spectrum of responsibilities to implement the right of access to water.

The Constitution entrusts municipalities with a **governance** role, a **service delivery** role, a **planning and community development** role and a **socio-economic development** role. The division of local government powers and functions between district and local councils varies across the country, depending on the type and size of the municipality. Municipalities conduct business and provide services according to **local needs** [96] and the prescriptions of the **various Acts governing local government** [97].

3.2) THE LOCAL GOVERNMENT TRANSITION ACT OF 1993

The Local Government Transition Act[98] provides for the revised interim measures with a view to promoting the restructuring of local government in South Africa. For that purpose, the Act established Provincial Committees for Local Government in respect of the various provinces; in addition provision was made for the recognition and establishment of fora for negotiating and managing the restructuring process, while allowing for the exemption of certain local government bodies from some of the provisions of the Act.[99]
New local structures, such as transitional rural local government councils were introduced. District Councils replaced the Regional Services Councils of the previous government era[100]. This Act justifies mentioning in this paper, precisely due to the fact that it has a place in the legal framework for development. It is the Act which introduced a total new paradigm in local government law in South Africa, especially with regard to **integrated planning.**

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[96] *In terms of water services*, the different water user sectors are referred to here.
[97] Local Government: Municipal Systems Act 32 of 2000, Local Government Municipal Structures Act 117 of 1998, Local Government Transition Act, 209 of 1993
[98] Local Government Transition Act 209 of 1993
[99] Scheepers, Theo *A Practical Guide to Law and Development: An Introduction to the law applicable to development and the development management process in South Africa*, Juta &Co, Ltd, 2000 at 39
[100] Ibid

3.3) THE LOCAL GOVERNMENT: MUNICIPAL STRIUCTURES ACT OF 1998

The categories, types, functions and powers of municipalities are dealt with in the Local Government: Municipal Structures Act. [101] As explained above, municipal areas in the country are divided into areas that have a category A municipality (metropolitan municipality), and areas that have both category C and B municipalities, respectively district and local municipalities. Areas in which category B (local) municipalities are not viable, are declared "district management areas" which are managed directly by district municipalities. [102]

Every municipality has the functions and powers assigned to it in terms of sections 156 and 229 of the Constitution. The section 229 powers and functions relate to taxes, levies and duties charged by local government, rates imposed on property, fiscal powers, economic activities across municipal boundaries and related matters. [103]

In terms of the Act[104], a district municipality must seek to achieve the integrated, sustainable and equitable social and economic development of the area as a whole. This is achieved through ensuring integrated development in planning for the district as a whole; promoting bulk infrastructural development and services for the district as a whole; building capacity of local municipalities in its area to perform their functions and exercise their powers where such capacity is lacking and promote the equitable distribution of resources between the local municipalities in its area.

One of the most important development – related functions of the district municipalities is building a framework for **integrated development plans** for the local municipalities within the area. Another important function is the bulk supply of water to municipalities in the area. [105]

According to section 88, a district municipality and a local municipality within the area of that district municipality must cooperate with one another by assisting and supporting each other. This Act is used to guide leaders, managers and officials on issues relating to the role of metropolitan, district and local municipalities in the development process. [106]

[101] *Act 117 of 1998*
[102] Section 6
[103] *Scheepers, op cit 43*
[104] Section 83
[105] Section 86
[106] Scheepers op cit 44

3.4) THE LOCAL GOVERNMENT: MUNICIPAL SYSTEMS ACT OF 2000

This Local Government: Municipal Systems Act[107] gives expression to the terms developmental government, **integrated development** and **sustainability**. It defines development as including integrated social, economical, environmental, infrastructural, institutional, spatial and human resources development aimed at improving the quality of life of communities. [108]

The service delivery responsibilities of local governments have now been regulated in Chapter Eight of the Act. This chapter provides a broad framework for municipal services delivery. The Systems Act instructs municipalities to ensure that " all members of the local community have access to at least the minimum level of basic municipal services " [109]

Section 74 prescribes the principles that must be reflected in a municipality's tariff policy. These include a water tariff policy. Two elements are stressed throughout the list of principles, namely:

- **Access to basic services**: **Section 74 (2) (c)** provides that poor households must have access to at least basic services through tariffs that cover costs only, special tariffs or other methods of cross – subsidisation.
- **Cost recovery: Section 74 (2) (b)** stipulates that the amount individual users pay for services should generally be in proportion to their use and section 74(2)(d) puts it beyond doubt that tariffs must reflect the costs associated with rendering the service. Further, section **74(2)(e)** establishes financial sustainability as a principle for tariff policy.

The implementation of the right of access to a basic water supply is further regulated in the Municipal Planning and Performance Management Regulations.[110] In these regulations, the Minister for Provincial and Local Government has set general key performance indicators for municipalities.[111] Sub-regulations 10(a) and (b) provide for the following indicators:

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107 Act 32 of 2000
108 Scheepers *op cit* 47
109 section 73 (1) (c)
110 Local Government: Municipal Planning and Performance Management Regulations, 2001 (*Government Gazette* Vol. 434, No. 22605) promulgated in terms of the Local Government: Municipal Systems Act 32 of 2000.
111 Section 43 of the Systems Act empowers the Minister to set these general key performance indicators.

- the percentage of households with access to a basic level of water, sanitation, electricity and solid waste removal; and
- the percentage of households earning less than R1 100 per month with access to free basic services.

Municipalities must report on these indicators in terms of their performance management system and the Minister compiles and publishes a report on the performance of municipalities in terms of these indicators.[112] In essence, it means that municipalities are forced to integrate these indicators into their planning and management and that their performance will be monitored by Members of the Executive Committee and the national Minister.[113]

3.4) THE DEVELOPMENT FACILITATION ACT OF 1995

The Development Facilitation Act [114] introduced into our legal system development law principles for land development and measures to speed up the implementation of development projects, called the RDP projects. The DFA lays down planning, development and dispute resolution procedures to facilitate the development process in South Africa. Planning in the local development sphere as well as all development involving land must be done according to the development principles prescribed in the DFA. [115]

The development principles relevant to this discussion can be summarised as follows:

- All policy, administrative practice and laws should provide for urban and rural land development and should facilitate the development of formal, informal, existing and new settlements.[116]
- Policy administrative practice and laws should promote efficient integrated land development by:

    1 promoting the integration of the social, economic, institutional and physical aspects of land development

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112 See also De Visser 2001b: 6-8.
113 De Visser et al at 10
114 Act 67 of 1995
115 Scheepers op cit 62
116 Section 3 (1) (a)

2 promoting integrated land development in rural and urban areas in support of each other

3. promoting the availability of residential and employment opportunities in close proximity to, or integrated with, each other

4. optimizing the use of existing resources , including agricultural resources, land , minerals, bulk infrastructure, roads, transportation and social facilities

5. promoting a diverse combination of land uses, also at the level of individual erven or subdivisions of land

6. discouraging the phenomenon of urban sprawl in urban areas

7. contributing to the development of more compact towns and cities

8. contributing to the correction of the historically distorted spatial patterns of settlement

9. contributing to the optimum use of existing infrastructure in excess of current needs

10. encouraging environmentally sustainable land development practices and procedures. [117]

In terms of section 27, land development objectives shall be set in respect of any particular local government area, by the local government body having jurisdiction, with the approval of the MEC, which approval shall not be refused unless the land development objectives fail to deal adequately with the subject matter to which the land development objectives in terms of section 28 shall relate.[118] The objectives should relate to , *inter alia*, the objectives of the relevant authority in relation to access to and the standard of services for land development, including public transport and **water**.[119]

Section **1 (b)** states that policy, administration and laws should discourage the **illegal occupation of land** with due recognition of alternative informal land development processes. Increasing informal settlements often results in a greater demand on water, which is a scarce resource.

[117] Section 3 (1) (c) (I – viii)
[118] Section 27 (1) (a) (i)
[119] Section 28 (1) (a)

3.5) THE WATER SERVICES ACT OF 1997

Everyone has the right to basic water supply and basic sanitation. The Water Services Act [120] provides for a number of water services institutions responsible for realizing these rights. [121] Water services institutions include:

- municipalities in their capacity as **Water Services Authorities**
  water service providers
  water boards, and
  water services committees.

The Act deals with one of the most important aspects of the right to development which is the right of access to water and sanitation for each household.[122] This is a basic need of every person and the implementation of this Act constitutes a significant step in the development process. The Act is based on the development law principles of :

- the right of access to sufficient water, basic water supply and sanitation
- the duty of the government to supply water and sanitation services in an efficient, equitable and sustainable manner
- the duty of government to supply water for subsistence and for sustainable economic activities
- the authority of municipalities to administer water supply services and sanitation services within the constraints of prevailing physical and financial circumstances
  the supply of services consistent with water resource management principles
  the national government being the custodian of the nation's water resources.[123]

The main role player in rendering water supply and sanitation services is the municipality acting as water services authority for its area of jurisdiction. Water supply and sanitation services can be provided by municipalities in a joint venture with the private sector or under contracts entered into with other public service providers.[124] The so – called public

[120] Act 108 of 1997
[121] Scheepers op cit 51
[122] Scheepers op cit 52
[123] Ibid
[124] Ibid

– private partnerships and public – public partnerships are some of the options available to water service authorities as a means of providing services effectively and efficiently.[125] A water services authority may, in its by – laws provide for the appointment of a water services intermediary to assist with water supply and sanitation services in a municipal area.

3.6) THE ROLE OF LOCAL GOVERNMENT (MUNICIPALITY) AS A WATER SERVICES AUTHORITY IN TERMS OF THE WHITE PAPER ON WATER SERVICES OF 2002

Role and Functions of the Water Services Authority

A water services authority has the duty of ensuring **progressive realization of the right to basic water services** subject to available resources (that is, extension of services), the provision of effective and efficient ongoing services (performance management, by-laws) and sustainability (financial planning, tariffs, service level choices, environmental monitoring).[126] This body is also responsible for preparing water services development plans (integrated financial, institutional, social, technical and environmental planning) to progressively ensure efficient, affordable, economical and sustainable access to water. Furthermore, it has to select, procure and contract water services providers including itself. Water services providers and provision is regulated in terms of by – laws, contract regulation, monitoring and performance management.

A water services authority may provide water services itself (internal mechanism). In this case, the water services authority must manage and account separately for the two functions. In practical terms this might mean that a municipal manager, acting on behalf of the municipality, contracts (as the water services authority) with the manager of the water services department to provide water services in terms of a performance contract with the municipality.[127]

A water services authority can also be a water services provider, both within its own area as well as by contract with another water services authority or water services provider.

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[125] Section 19
[126] *White Paper on Water Services*, October 2002 at 13
[127] Ibid

Financial framework

In terms of the Constitution, national government must provide for an **equitable** division of revenue raised nationally to be allocated **to local government**. This allocation of funds takes into account *inter alia* (1) the need to ensure that local government is able to provide basic services and perform the functions allocated to it, (2) the fiscal capacity and efficiency of municipalities, (3) the developmental and other needs of local government, (4) the obligations of the municipalities in terms of national legislation, and (5) the desirability of stable and predictable allocations of revenue shares. [128]

Water services authorities generally **own the water services assets within their areas** and are responsible to ensure that adequate **investments** are made in water services infrastructure and that these investments are sustainable over time. The water services development plan (mentioned in chapter 2) is an important tool to assist the water services authority to develop a realistic long-term investment plan which prioritizes the provision of basic water services, promotes economic development and is affordable and **sustainable** over time[129].

The primary source of funding for investment in water services infrastructure are national infrastructure grants, loans from development institutions, retained earnings from user charges and local taxes.

Credit Control

Water services authorities have the responsibility to develop a **credit control policy**.[130] This policy should provide for credit control procedures which (1) are fair and equitable, (2) provide for adequate notice, (3) provide for consumer representations, (4) allow alternative payment arrangements, and (5) set out a fair procedure that will be applied in the event of nonpayment.

When a consumer fails to pay for services, a municipality should be able to take action that will limit its financial loss and promote payment. [131]

[28] White paper op cit 33
[29] Op cit 34
[30] Ibid
[31] Op cit 36

PRICING AND TARIFFS

A *user tariff is just one means* of raising revenue to pay for the costs of constructing and operating water services. Alternative sources of income include taxes and subsidies of various kinds. Nevertheless, tariffs are the primary source of revenue for water and wastewater services in South Africa. (Over 80% of income in the water sector is derived from the sale of water.)[132] In terms of the government's policy of inflation targeting, it is desirable to maintain tariff increases below the rate of inflation. Tariffs directly affect the usage or consumption of a service by consumers. Tariffs that are based on sound economic principles can play an important role in promoting the efficient use of resources and hence reducing wastage. For example, a consumer who does not pay for water in relation to the amount of water consumed has no incentive not to waste water.[133]

Promoting sustainability.

Tariffs should be used to promote **sustainability** that may be understood in two broad senses:

- **Financial sustainability** of the relevant water services institution means that, subject to explicit external subsidies, tariffs should at least recover fully capital (financing and depreciation) costs in addition to operating and maintenance costs.
- **Environmental sustainability**, the protection of the environment, can be promoted by tariffs that ensure that external environmental costs are internalized into the tariff. A "rising block" tariff structure which discourages excessive use and reflects the marginal cost of expanding supply capacity, is particularly helpful. This is regulated in terms of **Section 10 of the Water Services Act**. Where this is not adequate, other measures should be adopted to ensure environmental sustainability.[134]

PLANNING, DELIVERY AND SUSTAINABILITY

One of the major lessons learned since 1994 is the need to focus on an integrated and planned approach to the provision of water services infrastructure.[135] An integrated

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[32] *Op cit at* 37
[33] Ibid
[34] *Ibid*
[35] Op cit 42 at par 2

approach focuses on programmes and ongoing operations, rather than only on infrastructure construction. It seeks to promote a **developmental approach** that includes proper integrated planning, consideration of the total business cycle, and adequate attention to ongoing operations. The primary instrument of planning in the water services sector is the water services development plan[136] (WSDP). This plan requires the consideration of the physical, social, economic, financial, environmental and institutional aspects of water services provision. In particular, it must reflect the intentions of the local government's integrated development plan (IDP), of which it forms part.

All municipalities are required to develop a water services development plan. A municipality that is not a water services authority is not required to develop a water services development plan. Nevertheless, municipalities in this position will still need to integrate water related issues into their **integrated development plan**. [137]

3.7) INTEGRATED DEVELOPMENT PLANNING

a) Definitions

In terms of the **Local Government Municipal Systems Act** [138], municipalities are required to lead and manage a plan for development. The process to facilitate development at local level is referred to as the **Integrated Development Planning Process (IDP)** and as mentioned above, this a legislative requirement for all local municipalities in the country. The **Local Government Transition Act** [139] (LGTA) defines an IDP as " a plan aimed at the integrated development and management of the area of jurisdiction of the municipality concerned in terms of its powers and duties ..."[140]

[136] Discussed in chapter 4

[137] *This occurs where a district municipality is not a water services authority; the district should use the integrated development plan to address issues related to the co-ordination of water services between water services authorities in the district. Secondly, where a local municipality is not a water services authority, the local municipality will need to summarise the implications of the district level water services development plan for its own area and integrated development plan.*

[138] 32 of 2000

[139] 209 of 1993

[140] Section 33 (1) and 10B

b) The purpose of an IDP

An integrated development plan is regarded as a tool that would be used in the eradication of the legacy of the past through restructuring of the city, promoting social equality, creation of wealth, fighting poverty and enabling intra and inter governmental cooperation. The IDP Process enables the local government and City administration to appraise the current situation in the City's jurisdiction area, **assess the community needs**, **establish public participation in development, prioritize needs, set goals to meet needs, establish programmes to achieve objectives and measure its performance.**[141]

c) Legal and Policy framework

Municipalities are required to structure and manage the administration, budgeting and planning process, to give priority to the basic needs of the community, to promote the social and economic development of the community and to participate in National and Provincial development programmes. [142] The Municipal Systems Act is the key legal instrument which regulates the development of the IDP.

According to the **section 26** of the Act, an integrated development plan must reflect:

- the municipal council's vision for the **long term development** of the municipality with special emphasis on the municipality's most critical development and internal **transformation needs**
- an assessment of existing level of development in the municipality, which must include an identification of communities which do **not have access to basic municipal services;**

  the council's development priorities and objectives for its elected term, including its local economic development aims and its internal transformation needs;

  the council's **development strategies** which must be aligned with any national or provincial sectoral plans and planning requirements binding on the municipality in terms of legislation;
- a **spatial development framework** which must include the provision of basic guidelines for a land use management system for the municipality;

  The council's **operational strategies**.

[141] www.capetown.gov.za/ IDP 2003 - 2004

[142] ***Constitution, Local Government*** White Paper of 1998 and Systems Act

As indicated above, the **DFA principles** are the guidelines according to which municipalities have to build integrated, liveable settlements. Building sustainable and liveable settlements depends on **integrated service delivery**; regulation and planning of all aspects of land use, infrastructure and environmental management amongst other basic services. [143]

The 1996 amendment to the LGTA[144] also requires that local authorities formulate and implement integrated development plans, which incorporate land us, transport, infrastructure and the promotion of local economic development in an integrated planning exercise. The LGTA makes it incumbent on municipalities to reformulate and implement an IDP. The IDP also serves as a **local macro plan** or framework for integrating all social, economic and environmental aspects relevant to a given municipal area.[145]

Functions that are delegated from government departments to the local sphere of government, such as policing, land – use planning, **water management** and primary health services, must be co – coordinated and focused at the district level. The district IDP's are guidelines for local municipalities responsible for decentralized departmental planning programmes emanating from national and provincial levels. [146]

The Council is also required to reassess its IDP annually in accordance with an assessment of its performance measurements in terms of section 41.The integrated development plan may be amended in accordance with a prescribed process. [147] The Municipality should give effect to its IDP and conduct its affairs consistently with this framework plan. [148]

IDP's should be seen as " incremental plans " that are linked to the budgets of local municipalities. According to Duard Barnard[149] incremental decision – making provides for the breaking down of an application into component parts. This deviates for the *functus officio* rule, which means that once an administrative official has considered and ruled an application, he is prejudiced from revisiting that application. He may not revoke, change

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[143] Scheepers op cit 237
[144] *Local Government: Transition* Act 209 of 1993
[145] Scheepers ibid at para 2
[146] *Ibid*
[147] Section 34, IDP
[148] Section 36, IDP
[149] Barnard, Duard *Environmental Law for All: A Practical Guide for the Business Community, The Planning Professionals, Environmentalists and Lawyers,* 1999, Impact Books, at chapter 17, para 4

or amend it as he has discharged his office or his *functus officio.* This rigid decision – making framework is " not conducive to the making of good environmental management plans" . Consecutive permissions can now be applied for in a step by step process until final authorization is granted. [150]

IDP development is a standard municipal function and cannot be delegated to consultants. The development of IDP's should be managed within municipalities as an inhouse exercise. These plans provide the framework within which municipalities manage and administer their affairs, make decisions, build organizational partnerships and take the lead in the development process in a municipal area. [151]

3.8) THE NATIONAL WATER RESOURCES STRATEGY (NWRS)

The National Water Resources Strategy[152] is the framework within which water will be managed internationally and at a regional or catchment level. It is a document that is binding on all authorities and institutions exercising powers or performing duties under the National Water Act. It is a framework for the protection, use, development, conservation, management and control of water resources for the country as a whole.[153]

Three key sectoral strategies are mentioned in this document which highlights the water demand management objectives for each water user sector.[154]

a) Water Services

An effective WC/WDM programme for the water supply and sanitation services sector is essential because, although it accounts for only about 15% of total national water use, it is the sector with the highest expected growth in demand. **Water services institutions** will be expected to determine their own targets and benchmarks for efficient water use, which will be included in their **Water Services Development Plans**.

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[150] Barnard, op cit at 130
[151] *Scheeepers op cit* 239 at para2
[152] NWRS of August 2002
[153] DWAF, *A Proposed National Water Resources Strategy for South Africa*, 2000
[154] NWRS Chapter three, Part 3, *Water Conservation and Demand Management, 2002*

Amongst the strategy objectives are the **adoption of integrated planning principles and promoting the efficient use of water to consumers and customers**. To facilitate achieving the objectives, proposed strategies include:-

- **Water services authorities** will be required, as part of their Water Services Development Plans, to develop a WC/WDM strategy in accordance with the model strategy prescribed by DWAF.
- **Water Boards** will be required to develop their WC/WDM strategies according to the model strategy prescribed by the Department, and submit them as part of their business plans. [155]

b) Agriculture

Irrigated agriculture accounts for almost **60% of water used in South Africa**. There are significant losses in many distribution and irrigation systems and, whilst there are areas where water use is highly efficient, substantial improvements can be achieved in others. Efficiency gains in the sector will make water available for the Reserve, and for other uses.

The strategy objectives for the agricultural sector include ensuring that **water user associations and end users understand and appreciate the need to progressively modernize their water conveyance systems and irrigation equipment. Water allocations should promote equitable and optimal utilization of water.**[156] Water users in the agricultural sector should apply for a water use licence and submit to a responsible authority a water management plan.[157]

c) Industry, Mining and Power Generation

The wellbeing of this sector is crucial to South Africa's economic development, and it requires **a high degree of certainty that its water needs will be satisfied**. There is nevertheless scope for water use to become more efficient without adverse impacts on economic activity. The sector is also a major source of waste discharges into water

[155] Ibid
[156] NWRS, op cit 68
[157] *In accordance with the Implementation Guidelines for Water Conservation and Demand Management in Agriculture: Development of Water Management Plans.*

resources, and attention must be given to minimizing the potential for unacceptable resource degradation.

The water management plans of large industrial users who draw their water from a municipal supply system will be included in the **Water Services Development Plan** of the **water services authority**.[158]

[158] NWRS ibid

CHAPTER FOUR
A CASE STUDY ON THE CITY OF CAPE TOWN MUNICIPALITY

4.1) AN HISTORICAL OVERVIEW

Prior to the 2000 elections, the overall number of municipalities amounted to 843. After the December 2000 elections, the number of municipalities was reduced to 284 of which 6 are metropolitan municipalities, 231 are local municipalities and 47 are district municipalities[159]. The **City of Cape Town** is a metropolitan municipality established in December 2000 by the merger of the Cape Metropolitan Council and six metropolitan local councils namely, Tygerberg, Oostenberg, Blaauwberg, South Peninsula, Helderberg and Cape Town. The City of Cape Town covers an area of 2 487 km2 and is the southernmost metropolitan area of South Africa. The municipality is responsible for service delivery throughout the metropole [160].

The City of Cape Town is a newly formed Metropolitan, **Category A** Municipality.

4.2) THE INTEGRATED DEVELOPMENT PLAN OF THE WESTERN CAPE

The **Western Cape Planning and Development Act** (WCPDA) [161] defines an IDF as " a development framework which deals with the integration of different strategies and sectoral plans relating to development such as economic, spatial, social, infrastructural ... environmental and water plans, to attain the optimal allocation of scarce resources in a particular geographic area, and includes an (IDP) as defined in section 10 B of the LGTA... ".

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[159] **De Visser *et al* op cit 9**
[160] < www.capetown.gov.za > Accessed on 24 October 2003
[161] ***7 of 1999***

The IDP/IDF Process enables the local government and City administration to appraise the current situation in the City's jurisdiction area, assess the community needs, establish public participation in development, prioritize needs, set goals to meet needs, establish programmes to achieve objectives and measure its performance.

Population

The City of Cape Town has a population of **3 154 238**. The population growth rate for the City of Cape Town is approximately **3.5% per annum**. The high population growth is occurring mainly among the poorer sectors of the population. Population growth is estimated to decrease to a rate of 1.2% per annum by 2010 as result of lower rate of immigration and the increase in the number of HIV/AIDS related deaths.[162]

As one of the larger municipal areas in South Africa, the City of Cape Town needs to ensure that it meets the needs of its communities adequately. The table below indicates the development indicators for five different aeas:[163]

INDICATORS	Informal Settlements	Public	Low Income Private	Lower Middle Income	Higher Middle Income
DEMOGRAPHIC/SOCIO-ECONOMIC INDICATORS[1]					
Median Age	22	24	21	25	31
Average Household income per annum	<R10000	R10-R20000	R20-R30000	R30-R60000	>R60000
% Household earning less than HSL (R1000 per month)	60%	31%	21%	13%	10%
ACCESS TO BASIC SERVICES[1]					
% households with potable water on-site or in-dwelling	52%	97%	98%	99%	100%
% households with flush toilet	52%	97%	98%	99%	100%
% households using electricity for lighting	45%	91%	98%	99%	100%

[162] IDP2003/2004 at pg 10
[163] *IDP 2002/03, Chapter 2*: Needs Analysis

The levels of access to water, electricity and sanitation for the informal settlements is relatively low. Among the reasons for the low service levels is the inaccessibility (no roads or tracks) of some of the settlements and the location of some of the informal settlements on private land.[164]

The critical components of the IDP which relate to service delivery are given expression in the water services development plan of Cape Town. These are equity, financial sustainability, corporate governance, redress, environmental protection, and public participation. The IDP is an empowering framework plan which encompasses the water services development plan.

The **Western Cape Planning and Development Act**[165] is founded on a set of general **planning and development** principles which are also found in Schedule 4 of the Act. These general principles which are by and large in conformity with those in the DFA are to " ... constitute frameworks, norms and standards relating to co – ordinated planning and development in the Province... ", with due regard to the general principles. [166]

Future spatial planning in the WCPDA is focused around **integrated development frameworks**.[167] This framework resembles an integrated development plan. It is defined as a " a development framework which deals with the integration of different strategies and **sectoral plans** relating to development, such as economic, spatial, social infrastructural, housing, institutional fiscal, land reform, transport, environmental and **water plans**, to attain the optimal allocation of scarce resources in a particular geographic area, and includes an integrated development plan as defined in section 10 B of the Local Government Transition Act of 1993 ".[168]
The Act lays out the general purpose of a sectoral plan as "... part of an integrated development framework, shall be to lay down detailed strategies, proposals and guidelines for the specific sector, element or subject for which it is prepared ". [169]

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[164] *Ibid*
[165] 7 of 1999
[166] Glazewski, Jan *Environmental Law for All,* Butterworhs, 2000 at 262
[167] Chapter 1 of the Act
[168] Definitions 2 (25)
[169] Section 5 (1) (b)

4.3) THE WATER SERVICES DEVELOPMENT PLAN (WSDP)

4.3.1) Objectives of the WSDP

The Water Services Act requires all water service authorities (municipalities) to draft water services development plans[170] which is a component of the IDP.

The contents of this plan must be brought to the consumers, industrial users, and other water institutions in the area. The public must be given an opportunity to comment on the proposed plan. A copy of the draft plan is sent to all neighbouring water services authorities. Once the municipality has finalized the development plan, copies of the plan are sent to the Minister of Water Affairs, the Minister of Provincial Affairs and Constitutional Development and the relevant province.[171]

The **objectives** of the Water Services Act, as outlined below, serve as a prerequisite to the formulation of a WSDP and are to provide for the following:

(a) The right of **access to basic water supply** and the **right to basic sanitation** necessary to secure sufficient water and an environment not harmful to human health or well-being;

(b) The setting of **national standards and norms** and standards for **tariffs** in respect to water services;

(c) The preparation and adoption of water services development plans by water services authorities;

(d) A regulatory framework for **water services institutions** and **water services intermediaries;**

(e) The establishment and disestablishment of **water boards** and **water services committees** and their duties and powers;

(f) The monitoring of water services and intervention by the Minister or by the relevant Province;

(g) **Financial assistance** to water services institutions;

(h) The gathering of information in a national information system and distribution of that information;

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[170] Section 12 (1)
[171] *Scheepers op cit* 251

(i) The accountability of water services providers; and
(j) The promotion of effective **resource management and conservation**[172].

The WSDP is a **business plan** setting out the way in which the water services authority plan and deliver services to individuals and businesses in its area of jurisdiction. It must also describe and analyse the **current and future consumer profile, the type of services which are provided, the infrastructure requirements, a water balance, organisational and financial arrangements to be used, an assessment of the viability of the approach, and an overview of environmental issues.**
Following this analysis, important issues that may impact on the provision of effective and sustainable water and sanitation services need to be identified and strategies must be formulated to improve service provision. These strategic issues will form the basis for input into the Integrated Development Plan (IDP) process. The WSDP also serves as a monitoring tool for DWAF and provides important planning information to be included in a national database.[173]

4.3.2) Main Rivers and Dams – sources of our water

The **rivers** in the CCT are relatively small. Some rivers worth mentioning are the Salt-, the Diep-, the Black-, the Eerste-, Kuils-, Moddergat- and Lourens rivers. The rivers which are utilized as **water sources** lie mostly outside of the CCT. These are the Berg- (including its Wolwekloof and Banhoek tributaries), Sonderend-, Eerste-, Palmiet-, Klein Berg- and Leeu rivers. Of these, the **Berg River** which flows in a northerly and later westerly direction is by far the largest.
The **major dams** from which the CCT is supplied are situated outside (except for the Steenbras Upper and the Steenbras Lower Dams) the mountainous eastern perimeter of the area. The **Theewaterskloof** dam near Villiersdorp is the **major water source of the CCT and forms part of a large inter-basin water transfer scheme that regulates the flow from the Sonderend-, Berg- and Eerste rivers.**

[172] ***Chapter 1, section 2 of the*** Water Services Act , www.gov.za/acts/97index.html
[173] City of Cape Town (Metropolitan Council) *Water Services Development Plan,* December 2001

The Voëlvlei dam is the furthest north near Gouda and relies on diversion works in the Klein Berg, Leeu and 24 rivers for its water supply. The Wemmershoek dam is situated in the mountains near Franschhoek and is supplied from various small rivers in the Wemmershoek mountains (e.g. Tierkloof- and Olifants rivers). The Steenbras Upper dam and Steenbras Lower dam are situated in the Hottentots-Holland mountain range near Gordon's Bay, and serve a dual purpose of providing an upper reservoir for the **Steenbras Pumped Storage Scheme and for supplying water for domestic/industrial use to the CMA.** Other smaller dams include the dams on Table Mountain (Woodhead, De Villiers, Hely Hutchinson, Victoria and Alexandra) which are used to supply water to Cape Town and South Peninsula, and the dams at Simons Town (Kleinplaas and Lewis Gay) which provide water to South Peninsula.[174] The effects of droughts are mitigated by minimizing spillage and wastage during the wetter years and restricting the supply for less essential uses during droughts.

During the dry summer months inflows to the dams are small and irrigation demands and garden watering demands in the urban areas are large. Approximately half the storage in the dams is required to store water during the winter in order to meet the high water demands during the summer.

4.3.3) Service Delivery Levels and Consumer Profile of the CCT

Consumers are supplied through metered erven connections in the formal areas, while communal standpipes are provided in certain informal areas. Current water demand totals 850 Ml / day, with the approximate usage as follows: Residential – 50 %, Commercial – 5%, Industrial – 5 %, Large users – 15 %, Other – 7 % and UAW – 18 %.[175] Actual water demand has exceeded available supply at a 98 % level of assurance since 1999, resulting in the specter of potentially serious water shortages. Low – level water restrictions were imposed during the summer of 2000 following a particularly low preceding winter rainfall. Projected un – restrained growth in water demand could total 1200 Ml/ day by 2006. [176]

[174] WSDP op cit 7
[175] Ramsay, Dave and Wood, BN *Integrated Urban Water Management: A City of Cape Town Perspective, 2003*
[176] Ibid

The number of consumer units in the areas that make up the CCT[177] indicated that there are a total of 527 356 formally occupied erven. It is estimated that the population would increase to between 3.45 and 3.65 million by 2006. [178]

With reference to water services, the Water services Act requires that all developed areas should meet minimum standards such as **communal standpipe within 200m** walking distance and at least a **ventilated improved pit latrine (VIP)** or equivalent. A survey undertaken in May 2001, indicated that there are at least 92 000 informal households of which 20 % do not have adequate access to basic water supply and 57.7 % do not have access to sanitation services. [179]

The CCT is committed to providing efficient, uninterrupted and affordable services, which is clean and safe to all consumers. CCT is therefore in the process of implementing the ISO 9001 Quality Management System to improve communication with consumers, revenue collection and quality management. As part of this process, the CCT has established a Customer Charter, which has been advertised in public papers on 7 September 2001.

The CCT has also identified the need to establish a "Customer Revenue Division" to improve service delivery. One of the key issues identified in the WSDP was the need to compile a service delivery strategy to address the current backlog of consumers with inadequate water services. This process has however started through preliminary discussions and workshops during which it became apparent that the most likely service level strategy would be to provide all consumers with access to standpipes and communal (container) toilets taking cognizance of land ownership, the financial and environmental constraints.[180]

A more recent consumer survey conducted in Cape Town in **April 2003**, indicates that **79** % of **informal settlement residents** do not have access to free basic water and sanitation services. These are indicated in the following charts:

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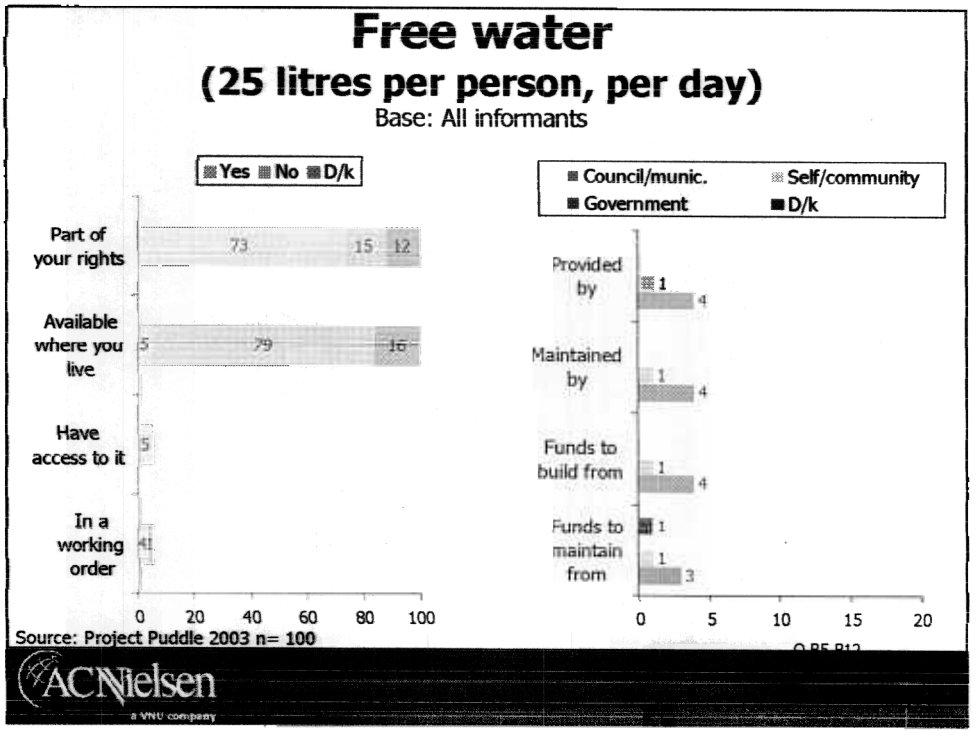
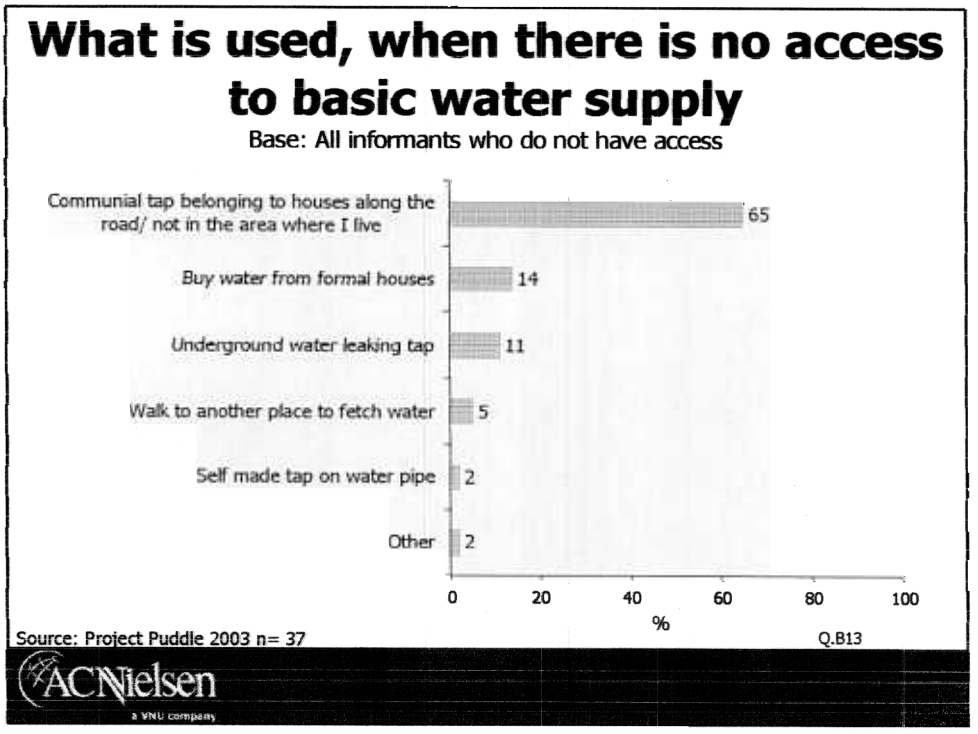
[177] IWEP Report: *Alternative Options to meet the Demand for Water in the CMA*
[178] Dorrington, RE, *Projection of the Population of the Cape Metropolitan Area1996 - 2031*
[179] WSDP ibid
[180] WSDP (2001) at vi





Residents in **informal settlements** are generally satisfied with the quality of the drinking water. Only a third claims that they have been consulted when decisions were taken about the provision of basic water and sanitation. On a spontaneous level, 44% of

residents in informal areas believe that it is their right to have an own tap, whilst 37% regard a flush toilet as part of their rights.

According to the IDP 2003/ 2004, the number of informal shacks has grown rapidly from **28,300 in 1993 to 59,854 in 1996, to 72,140 in 1998**.These developments often occur in risky and unsustainable sites. A majority of the informal settlements are located far away from employment opportunities whilst pockets of informal settlements, such as Marconi Beam, are situated close to business areas. The informal settlements are typically occupied by young, poorly educated and unemployed communities. The levels of access to water, electricity and sanitation for the informal settlements are relatively low. Among the reasons for the low service levels is the inaccessibility (no roads or tracks) of some of the settlements and the location of some of the informal settlements on private land. The rapid growth of the informal settlements, as well as the social and physical environments, contributes to the spread of disease and high rates of violent crime[181].

What is evident from the consumer survey, is that very few residents in informal areas believe that they have access to 25 litres of free water per day **(5%)** and even fewer **(1%)** have access to health and hygiene education.

When there is no access to basic toilet facilities, informal residents use the bush / veld - it is alarming that this happens in the majority of households in informal areas.

Residents in informal areas have indicated that they are prepared to pay for a higher level of toilet facility (**39%**).

Overall, very few residents have had dealings with the municipality. Those that had dealings were in most instances satisfied with the service received; however as was shown in 2002, residents indicated that there "is no follow-up to ensure that the problem has been sorted out" .

Residents of Cape Town are not well aware of the fact that water in Cape Town costs less than anywhere else in South Africa - an opportunity to communicate this as 1 in 2 residents feel we generally pay too much for water. These results prove that there is a lack of education regarding basic water rights as well as a need for improved water and sanitation services.

[181] www.capetown.gov.za/ IDP 2003/2004pdf. at 23

4.3.4) Service Backlogs and the Future Service Delivery Strategy

The IDP provides for various types of services that are offered to the communities by the City and indicates the backlogs for these services. The service delivery backlogs can be represented by different areas, amongst these are **trading services.**

Trading services are very large trading entities presently operating as an integral part of the municipal functional areas. Income from Trading Services contributes roughly 47% of Council's income. Trading Services comprise the following three functional areas:

- **Water and Sanitation** – provision of services including amongst others bulk water, dams/storage, waste water treatment, provision of sanitation services to individuals and business, provision of water, water demand management, water quality management, and customer and revenue management.
- **Electricity** – providing distribution, generation, network operations, sales and customer services, and service management of electricity.
- **Solid Waste Management** – providing disposal, collection and cleaning services.[182]

The overall standard of service for Trading Services is relatively high in terms of high **potable water quality** and a stable electricity supply with few disruptions. However service delivery in the poor communities, especially informal settlement is still very poor. The following statistics indicate the need for essential water services:

Treated wastewater effluent quality does not comply with statutory requirements – while there have been significant improvements, the quality of the treated effluent at the 22 wastewater treatment works still fail at least one parameter at each plant. **Water and sewer reticulation services** – 23% of informal settlements are without a basic water supply and 58% are without a basic sanitation service.[183]

Future Delivery Strategy

The Water Services Development Plan states that the area of jurisdiction of the CCT can be categorised according to the access to services as follows:

1. **Urban Areas**: Characterised by the availability of **bulk water and sanitation services** and formal and informal nature of the urban settlements.

[182] *IDP op cit 25*
[183] Ibid

2. **Urban Periphery**: By far the minority, these areas are characterised by scattered communities on agricultural holdings or farm portions with none or limited access to water and sanitation services. These consumers located mainly in the areas north of Table View and Durbanville generally make use of **on-site water and sanitation services** usually provided through **own incentives**.[184]

The Water Services Act states that " **Everyone has the right of access to basic water supply and basic sanitation** " [185], subject to certain limitations as set out in the Act including the " availability of resources ". The CCT is in the process of drafting a **Service Delivery Strategy**, for the provision of basic services. The overall objective is to **extend water services as rapidly as possible to all potential customers**.

Service levels are likely to include the following:
- Provide on-site water and **waterborne sanitation** to all formal sites;
- Provide a **free basic level of water** to all households within 200 m;
- Within informal areas, provide access to either communal toilet blocks or some form of shared toilet, depending on local conditions. [186]

The **long-term financial implications** of the sanitation options need to be assessed. Among the issues to be considered are the following:
- Affordability of monthly bills to consumers,
- Consumers are willing to pay for the service levels provided and accept the tariff increases that may be necessary,
- Non-payment levels do not increase significantly,
- Consumption is modest so as to minimise non-payment due to lack of affordability, and to delay the need for bulk capacity expansion,
- Unaccounted-for-water losses are kept to a reasonable level.

Water – borne sanitation requires huge amounts of up - front expenditure. Pump stations and outfall sewers are expensive, and the required capacity expansion will inevitably lead to the service provider passing on these higher costs to the consumers.

[184] WSDP *op cit* 21
[185] section 3
[186] WSDP ibid

4.3.5) Water Balance

One of the major issues facing Water Services in the CCT is the **limited water resources.** The current shortage of raw water storage capacity has markedly increased the risk of water shortages occurring in the Cape Metropolitan Area from the year 2001 onwards. The lack of storage capacity coupled with 3 years of below average rainfall between 1998 and 2000 led to DWAF imposing low level (10% reduction in water demand required) water restrictions upon the users of water from the Western Cape Water Supply System.

The **groundwater resources** are summarized in the following table: [187] The volume of groundwater abstracted by consumers residing in the urban peripheral areas that do not have access to bulk water services is unknown.

Aquifer	No. of Boreholes	Firm Yield (1:50 yr) Mm^3/year	% of Total Requirements
Albion Spring	Not applicable	< 1	1.8% of total resources
Atlantis	44	4.4	
Cape Flats	Not yet developed	18	
Newlands	Not yet developed	10	
Total		Approx. 33.4	

With regards to surface water, this is stored in dams during the wet winter months in order to ensure a continuous water supply during the dry summer months. The CCT utilizes water from various dams within the CMA and also from dams outside the CMA. Some of the dams are operated and controlled by the CCT, whilst the other dams are operated and controlled by the Department of Water Affairs and Forestry (DWAF). The CCT currently obtains approximately **70 to 75%** [188] of its raw water requirements from DWAF and the remainder from its own sources. Approximately **15%**[189] of the raw water requirements are obtained from sources within the CMA.

The major dams that are utilized have been discussed in paragraph 4.2.

[187] WSDP *loc cit*
[188] WSDP op cit 36
[189] *Ibid*

4.3.6) Policy Development to address water demand

In terms of the Water Services Act, by – laws are required to regulate the water service, especially where water user sectors compete for the resource. The **Water Demand Management Policy and Water Tariff policy** has been formulated thus far and it forms an important part of the City's IDP. **Section 74** of the Municipal Systems Act prescribes the principles that must be reflected in a municipality's water tariff policy and Water Demand Management policy. Two elements which are emphasized are **access to basic services and cost recovery.** Section **74(2) (c)** provides that poor households must have access to at least basic services through tariffs that cover costs only, special tariffs or other methods of cross – subsidization. Section **74 (2) (b)** stipulates that the amount individual users pay for services should generally be in proportion to their use, and section **74 (d)** puts it beyond doubt that tariffs must reflect the costs associated with rendering the service. Section **74 (2) (e)** establishes financial sustainability as a principle for tariff policy.

It is stated in the Water Demand Management Policy that the Department of Water Affairs and Forestry has identified the Western Cape Region as the first major urban region where the demand for water will exceed total potential yield. This will occur around 2030, depending on the urgency with which water demand interventions are introduced. Cape Town has in the past responded to water scarcity and shortage by "selecting the option to increase the water available to the system, but without proper consideration of the option of curbing the flow of water out of the system ". The former Cape Metropolitan Council accepted a policy statement in 1997 which required the Council to develop and manage a water demand management strategy. This strategy would have reduced DWAF's projected water demand in greater Cape Town by 10 % by the year 2010. [190]

The long – term goals for the provision of potable water to Cape Town will be ensured via the policy as well as the implementation of its fundamental objectives[191].

[190] Water Demand Management Strategy, September 2001

[191] Equity, sustainability, affordability, reduction of water demand by 2010, encourage optimal use of water, maximize the alternative use of water, minimize the loss of water, ensure wise use of water by the municipality.

As per the regulations pertaining to compulsory national standards and measures to conserve water[192] , basic water supply means 25 litres of water per person per day. Basic sanitation refers to the provision of appropriate health and hygiene education as well as the provision of adequate lavatory facilities.

All water services authorities must, in terms of these regulations, include a suitable programme for sampling the quality of potable water provided by it to consumers in its water services development plan. Appropriately, the municipalities must include a water services audit in its annual report on the implementation of its water services development plan required in terms of section 18 (1) of the Act. The audit must contain details of *inter alia,* the **quantity of water used by each water user sector for the previous two financial years, the levels of services rendered, the tariff structures for each water user sector, meter installation and meter testing, water quality sampling and water conservation and demand management.** [193]

4.3.7) Water Demand Management Implementation Strategy

Studies have determined that the total volume of water available from our catchments will be fully utilized between the years 2020 – 2030.[194] At that time the total demand for water will have exceeded the total potential supply from surface water resources.

Water restrictions were implemented on 1 November 2000 and have been in force since then. The Water Demand Management Implementation Strategy serves to ensure that the Water Demand Management Policy of the City is implemented "effectively and efficiently" and that it would lead to a saving of 20 % or more of the projected consumption by 2010. The strategy entails a high intensity programme lasting three years after which a programme of ongoing maintenance and public education will be required.

In addition, the strategy reinforces the responsibility of municipalities with regards to wise water use. It emphasizes that municipalities need to lead by example. Excessive flushing times and volumes can be reduced, wasteful fittings should be adjusted, repaired or

[192] In terms of section 9 (1) and section 73 (1) (j) of the Water Services Act
[193] *Water Demand Management Strategy op cit* 130
[194] WDMS at 233

replaced and a responsible approach by municipal Parks and Forest departments to irrigating road medians, verges, parks and sport fields must be implemented. [195]

Municipalities are also required to develop an appropriate water services by – law to legislate the optimal use of water, incorporating the essential water demand management requirements to limit the inefficient and wasteful use of water. A new consolidated Water Services By – Law is proposed which will incorporate all the requirements of the Water Services Act, including water demand management. Issues such as wasteful use of water which includes washing cars with hosepipes and the use of automatic flushing urinals need to be addressed.
The successful implementation of Water Demand Management requires commitment from all role players involved. As mentioned above the strategy is a component of the municipality's water services development plan.

4.3.8) Water By – Laws

In terms of the Water Services Act, every **Water Services Authority** has to promulgate Water Bylaws which set out conditions for the provision of water services. There is a need to draft consolidated Water Bylaws for the CCT[196]. These Bylaws must contain the following (as per **Section 21** of the Act):
21. (1) Every water services authority must make bylaws which contain conditions for the provision of water services, and which must provide for at least:
(a) the **standard of the services**;
(b) the **technical conditions of supply**, including quality standards, units or standards of measurement, the verification of meters, acceptable limits of error and procedures for the arbitration of disputes relating to the measurement of water services provided;
(c) the **installation, alteration, operation, protection and inspection of water services works and consumer installations;**
(d) the determination and structure of **tariffs** in accordance with section 10[197] ;

[196] Municipalities are encouraged to draft a municipal policy to ensure wise water use within the *municipality.*
[196] Water Services Development Plan op cit 25
[197] *Section 10 deals with norms and standards for tariffs*

(e) the payment and collection of money due for the water services;
(f) the circumstances under which water services may be limited or discontinued and the procedure for such limitation or discontinuation; and
(g) the prevention of unlawful connections to water services works and the **unlawful** or **wasteful use** of water.

The CCT has formulated a number of by – laws which include the **Cape Town Municipality Drainage and Sewerage By – Law**[198] **and the Water Services By – law to Limit and Restrict the Use of Water**[199]. The latter by – law provides that the Council may impose measures to limit, discontinue and restrict the use of water for the promotion of water conservation and must do so in accordance with procedure.[200] After the Council has determined that it is necessary to limit or discontinue the supply of water services or the use of water in terms of section 2 [201], or wishes to restrict the use of water in terms of section 3 notices must then be displayed at the offices, indicating the duration of the restriction or discontinuation, the use of the water to be limited, the area in which the limitation will take place, the circumstances in which the limitation is to be applied and the Council's obligation to ensure a minimum supply of potable water[202] to all residents affected by the limitation or restriction [203].
Imposing water restrictions of increasing severity would ultimately detrimentally affect the economy of the Western Cape[204]. There exists three ways to balance the water demand figure to the water supply figures, namely to implement measures to:
1) reduce the demand over a period of time;
2) increase the water supply available and
3) reduce the demand and increase the supply simultaneously.

[198] PN397/1987
[199] CMC, 27 March 2002
[200] Section 3
[201] *Water services may be discontinued due to national disasters causing disruptions or where* sufficient water is not available for any other reason.
[202] Every water services authority has the duty to provide to all its consumers efficient, affordable, economic and sustainable access to water services, as provided in s 11 (1) of the WSA.
[203] Section 4
[204] WSDP op cit 41

The need for water restrictions is determined by the level of water in the dams, the projected growth in water demand as well as the implementation date of future water resource augmentation schemes. Level 1 water restrictions **(10% saving required),** such as the restrictions that were recently enforced, are applied earlier rather than later, in order to ensure that the City of Cape Town would have sufficient water to last through a drought cycle (a number of very dry winters). Level 2 restrictions that would require a **25% saving** and also negative impact on industry, would only be applied if level 1 restrictions were not having the desired affect or under severe draught conditions. It is better to introduce Level 1 restrictions at an early stage than reach a situation where it may be necessary to implement Level 2 water restrictions which could negatively affect the economy of the Western Cape[205].

The make up of the restrictions imposed[206] was part disciplinary and part good water demand practice. The City of Cape Town has lifted the punitive portion of the restrictions (i.e. limited 1 hour watering on alternate days), but has maintained the restricted watering hours component (i.e. before 10:00 and after 16:00) as this is deemed to be good water practice.

4.3.9) Existing water infrastructure in the Western Cape

Issues that need to be addressed are for instance, the fact that the infrastructure database should be updated; there is limited information on internal wastewater systems as well as the Asset Management Program (Inadequacy of current preventative maintenance/pipe replacement programs, including the rehabilitation of pitch fibre sewers.)

The water supply infrastructure can be categorized into two groups, i.e. **internal distribution systems,** as previously administered by the former Metropolitan Local Councils, and **bulk system** as previously administrated by the Cape Metropolitan Council. The bulk water supply system is generally in good order with sufficient capacity to meet the required demand. Water gravitates from the majority of the dams, located mainly outside of the Cape Metropolitan area, via a number of large diameter pipelines to the water treatment works and bulk storage reservoirs from where water is distributed directly, but also via internal service reservoirs to consumers via bulk connections. A

[205] *WSDP loc cit*
[206] 1 November 2000 to 30 September 2001

number of pumping stations are also required to boost supply in the higher lying areas[207].

4.3.10) Stormwater Ingress into Sewers

Stormwater ingress into sewers is a major problem facing Water Services in the CCT. It reduces the conveyance capacity of sewer pipelines, as well as the capacity of the wastewater works to handle sewage flows. A distinction needs to be made between the following two types of stormwater ingress, namely:

- **Stormwater Infiltration**: This happens through cracks in the existing sewer pipes and requires sealing or replacement. (The opposite to infiltration, namely exfiltration leads to pollution)
- **Stormwater Influx**: This is the illegal connection of stormwater pipes to the sewer systems. The solution to this problem is frequent inspections. [208]

It is the intention of the CCT to initiate a study to determine the extent of the problem.

4.3.11) Environmental Management Initiatives

Management of the environment of the City of Cape Town (CCT) is guided by emerging national as well as international law and legislation. All proposals must conform to these higher order statutes, such as the **International Convention on Biodiversity** and the **National Environmental Management Act (NEMA)**. The CCT through the former Cape Metropolitan Council (CMC) has implemented a number of initiatives to monitor the environmental status, protect the environment and set standards in accordance with the relevant Acts.[209]

The former CMC has initiated a comprehensive process called the "State of Environment Report"[210] to report on the current status of the environment and many issues relating to

[207] WSDP at 49
[208] WSDP at 50
[209] op cit 54
[210] www.cmc.gov.za/soe

the WSDP that may impact on the environment taking cognizance of the relevant Acts. The CCT has continued this process, which is now in its third cycle[211].

Environmental Conservation Act [212]

In order to safeguard the environment against activities that could have a detrimental effect on the environment, regulations in terms of **Sections 21, 22 and 26 of the Environmental Conservation Act (ECA)** were promulgated on 5 September 1997. According to these regulations an environmental Impact Assessment (EIA)[213] is a legal requirement for certain scheduled construction activities.

The CMC Administration subscribes to a philosophy of **Integrated Environmental Management (IEM)** and has adopted an Integrated Metropolitan Environmental Policy (IMEP) and is initiating Environmental Management Systems (EMS) for its operations[214].

The Integrated Development Plan of 2003 describes the City of Cape Town as one which has a unique ecosystem as a result of the Mediterranean climate, Table Mountain and the sea. Development in the City is placing undue pressure on the environment. The City of Cape Town has 476km2 of land with formal conservation status that includes national, provincial and local nature reserves.[215]

Water management in the City of Cape Town includes the management of stormwater systems including rivers, vleis, wetlands, groundwater and the impact of land-based activities on the coastal waters. The City imports most of its **potable water from catchments** situated outside of the metropolitan boundaries. Certain inland water bodies are used for recreational purpose and some wading takes place in the rivers. Therefore the inland water bodies need to be analyzed and maintained for fitness of use by measuring their bacteriological data and presence of algal blooms[216].

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[211] Ibid
[212] 73 of 1980
[213] *An assessment of the environmental* impact of a proposed land development.
[214] Ibid
[215] *IDP op cit* 33
[216] ibid

The impact of urban growth on the natural environment is particularly bad in poorer areas. Inadequate waste removal, lack of access to clean drinking water, and sanitation and drainage, amongst others leads to poor environmental health in poorer communities and also impacts on the health of the wider community. These conditions become particularly severe during periods of heavy rain. The CCT has embarked upon a process of developing an integrated metropolitan environmental management strategy (IMEMS). This **Integrated Metropolitan Environmental Policy (IMEP)** will form the basis for a series of strategies and programmes to ensure that the principles of sustainability are adhered to. This will enable the meeting of current needs as well as the maintenance of our resources for the benefit of future generations. The IMEP and the IMEMS were adopted by the CCT in October 2001. The strategy reads as follows:

A commitment to ensuring that the quality of coastal, marine and inland waters of the CCT is suitable for the maintenance of biodiversity, the protection of human health and a commitment to the principle that all CCT inhabitants have the right to clean, potable and adequate water sources.

This commitment includes:

- Recognizing that water is a scarce and valuable resource, which sustains communities, ecosystems and economic development.
- Recognizing the importance of groundwater as a water resource.
- Management of water demand to ensure the long term sustainability and affordability of water resources and the environment.
- Ensuring water quality, at a minimum, meets national standards as established by the Department of Water Affairs and Forestry.
- The effective management of all wastewater systems. [217]

The Municipality should ensure that the water services development plan endorses a balance of access to the resource amongst all water user sectors. Delivery of water services should give expression to sections 2 [218]and 3[219] of the Water services Act.

Main Strengths of the City

[217] *Water Services Development Plan loc cit*
[218] The main object of the Act, namely to provide access to basic water supply and sanitation
[219] *The law that everyone has the right to basic water supply and sanitation*

According to the WSDP the staff of the City of Cape Town possesses the necessary skills and is passionate about their work. The City of Cape Town has good partnerships with the private sector and other spheres of government.

The Trading Services Directorate has good infrastructure in place i.e. electricity distribution network, water distribution network, depots etc.

Main Weaknesses of the City

The City of Cape Town has poor focus on the communities, whom it exists to serve – the City needs to focus on the needs of the public and how best to meet and satisfy these needs. The City of Cape Town has IT systems that often results in the incorrect billing of customers.

There needs to be improved levels of communication and coordination between the various directorates and departments of the City to better service delivery to the community.

The City of Cape Town does not have a system to monitor and manage its performance in terms of service delivery. There is also lack of integration among the seven administrations Bureaucratic delays (red tape) - The City of Cape Town has delays with regard to service delivery which impacts the performance of the organisation i.e. approval of business plans, approval of business licenses.[220]

In my interview with **Mr. Dave Ramsay**, Director of Water Services at The City Of Cape Town Municipality, it was made abundantly clear that the Water Services Development Plan is the main strategic Document that the Municipality uses. However, the plan is currently under review, with specific reference to the **capital development programme**, since there are major constraints on the Municipality in terms of affordability for the City and the residents. The **informal settlement** section will also be updated, since this need is still there and the plans are more developed now. A range of scenarios for different capital budget provisions will be scrutinized. Mr. Ramsay added that alternative funding

[220] *WSDP ibid*

options for capital works, such as Build Operate and Transfer (BOT) by the private sector, will also be considered. The projections for population growth have also been updated after the census figures were released, thus a more accurate idea of the affect of the AIDS epidemic is indicated. [221]

He then referred me to **Mr. Willie Enright**, regional director at Department of Water Affairs and Forestry (DWAF) who in turn highlighted some of the criteria used to balance the interests of the various water user sectors. Mr Enright stated that the issuing of licences is a means of controlling water use amongst the various sectors.

CRITERIA TO BE CONSIDERED IN THE ASSESSMENT OF WATER USE LICENCES

A) The Reserve

Ecological Reserve[222]

The National Water Act of 1998 makes provision for a preliminary determination of the Reserve with a view to expediting the process of issuing licences, so as not to keep the public waiting and put a brake on development and possible job creation.

Human Reserve

According to DWAF, the human reserve is easier to determine. The low flow, after the licence under consideration has been granted, should be adequate to cater for the basic needs of those dependent on the resource. As a guide the minimum of 25 litres per person per day may be used. In metropolitan areas care should be exercised to ensure that those for whom water is being " reserved " are actually dependent on that part of the resource. Some supply schemes draw on resources remote from where the consumers live and care should be exercised to ensure that consumers are not counted twice. [223]

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[221] interviewed on 13 November 2003
[222] *Section 27 (1) (j) of the* National Water Act
[223] DWAF, *Draft Policy: Criteria to be considered in the assessment of water use licenses*

A) The Class and the resource quality objectives of the water resource[224]

Once the system for classifying the water resource of each catchment /sub catchment is in place and the actual classification has taken place in accordance with **section 13(4)** of the Act, licences will have to be considered, taking account of the objectives outlined in **section 13(3).**

A) The existing water use in the catchment under consideration[225]

All existing (lawful) use must be taken into account when considering licence applications.

Following the repeal of certain sections of the old Act and the fact that the whole of the new Act is not yet in place, certain voids have arisen for example, there is no longer a Water Court to deal with mining, non riparian, municipal and other applications.[226]

To deal with this dilemma, it is imperative that **section 33** of the National Water Act be made effective as soon as possible to allow contemplated use (**section 33(3)(b)(ii)** to be authorised as **existing lawful water use.**

It is important that the rights of existing legal water users are not prejudiced by any new allocations made. If a catchment/sub-catchment is approaching a level at which the water resources are becoming stressed, it may be wise to **require compulsory licensing for all users prior to considering new applications**. This will ensure that all users, existing and potential, can be given **equitable** treatment. Obviously the capital invested by existing users must be taken into account. By compulsory licensing, illegal use, inefficient use or use not in the public interest may be able to be identified, or it may become clear that the water resources of the catchment under consideration will not be able to meet the demands and augmentation from an adjacent catchment may be required.[227]

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[224] *Section 27 (1) (g)*
[225] Section 27 (1) (a)
[226] DWAF, *Draft Policy: Criteria to be considered in the assessment of water use licenses* at 3
[227] Ibid

Existing lawful water use is very complex and is described more fully in **section 32** of the Act. Actual permitted use under the old act in terms of **section 62, 9B or scheduled use in terms of section 63** does not present a problem, since it is quantifiable in terms of the permits issued. The problem arises when someone has exercised a riparian right and is abstracting what they regard as their fair share of the normal flow in terms of the previous act, but has **no documentation to back it up**- This is unfortunately the case for most irrigation use in South Africa.[228]

The most correct way of quantifying this, is to resort to the modus operandi, used in the proclamation of **Government Water Control Areas** in terms of the old Act, 54 of 1956, in other words to calculate the theoretical abstraction right in terms of available potentially irrigable land and the flow available for 70 % of the time during the critical months. This should not be limited to low flows only, as many riparian owners abstract and apply surplus water to their crops, directly from the rivers during all months of the year with sufficient assurance, which is often increased by means of the provision of storage.[229]

Owners who are over-irrigating would then be licensed only for the legal portion of their use and the rest would be licensed on a very short-term basis (say 2 - 5 years) if there is available water, **after making provision for the Reserve** and other legal existing use. If there is insufficient water, the use in excess of their legal right would not be licensed and use would have to be curtailed, without compensation.[230]

It is envisaged that most previous riparian use will be dealt with by means of the fact that it is deemed to be existing lawful use and may continue in the short term, but will receive attention either with the first review after 5 years or when compulsory licensing of the area takes place.
All use of underground water outside of subterranean government water control areas is lawful existing use.[231]

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[228] **Ibid**
[229] *Ibid*
[230] Section 22 (7) (b)
[231] *Draft Policy op cit at* 4

A) The available (unallocated) water in the catchment

Once the water resources have been assessed, the Reserve taken into account, the requirements of the applicable strategies are met, the remaining water may be allocated, taking account of any other factors or restraints.
If there is a large surplus, it may be in accordance with the National Water Resource or Catchment Management Strategy that this is made available for transfer to adjacent catchments, where there may be shortages.[232]

A) The likely effect of the water use to be authorised on the water resource and on other water users in the catchment [233]

One must bear in mind that by their very nature, general authorisations imply less control or interference with those users within the general authorisation limits.
This means that the licensing authority must do its homework thoroughly, in advance - prior to the issuing of a general authorisation. This entails determining the Reserve, existing use, unutilised resources available, estimating future use and then determining the impact the General Authorisation will have on existing use and the rights of users. What is important to assess, is whether it will have the desired effect.
Obviously, as with most of the other licensing activities in the new Act, it is vital to have accurate knowledge of the existing situation on the ground at the date of implementation of the general authorisation.[234]

F) The impact on the environment

According to **Government notice No. R1182 published in Government Gazette No. 5999 on 5 September 1997** certain activities were identified **under section 21 of the Environment Conservation Act, 1989 (Act no 73 of 1989)** as activities which may have a substantial detrimental effect on the environment.

Those relevant to the National Water Act, listed in **schedule 1** of the notice are

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[232] *Ibid*
[233] Section 27 (1) (f)
[234] *Draft Policy op cit 5*

- **canals and channels**, including diversions of the normal flow of water in a river bed and water transfer schemes between water catchments and impoundments;
- **dams, levees or weirs** affecting the flow of a river;
- **reservoirs** for public water supply;
- **schemes for the abstraction or utilisation of ground or surface water** for bulk supply purposes; and
- **sewage treatment plants** and associated infrastructure.

Furthermore, the following changes in land use are also mentioned:

- **agricultural** or undetermined use to any other land use;
- **use for grazing** to any other form of agricultural use; and
- **use for nature conservation** or zoned open space to any other land use.

Ideally the Department of Water Affairs and Forestry licence application forms should be compiled in such a way, as to include the questions required by the environmental legislation in order to simplify the matter for the applicant.[235]

The **agricultural** sector is often accused of using water inefficiently because it is subsidised by governments in the region. It is thought by economist that by changing the price of water farmers will be forced to introduce water saving measures, but more importantly shift to planting higher value crops in areas that are more suitable for agriculture. Water demand in this case would also have **environmental benefits** in the long-term as it will ensure more sustainable uses of agricultural resources.[236]

G) The need to reverse the results of past racial and gender discrimination.[237]

In the past under the old act, water was allocated to owners of land in terms of the riparian rights principle. In most cases it was the land owners who developed and used the water flowing past (or through) their properties. As very little or no development had

[235] Ibid
[236] IUCN *Fakir, Salim Finding Future Water in Southern Africa: Avoiding conflict and War,* 2000
[237] Section 27 (1) (b)

taken place in the tribal areas, water was in fair abundance and shortages only occurred in times of drought.[238]

In order to rectify this imbalance, the catchment management strategy should take account of the needs of all stakeholders in the catchment and ensure that the allocation policy adopted makes provision for this. **Equity** should be the guiding principle.[239]

Obviously the human reserve must be met first, followed by the ecological reserve. Thereafter, other demands should be addressed in an equitable manner. It is important that the aspirations of the previously disadvantaged be accommodated. In many cases capacity building will have to take place in order to ensure that the allocated water is used beneficially.[240]

H) Efficient use and beneficial use of water in the public interest.[241]

The concept of "**public interest**" is a very complex one. Previously, under the old act, permits were issued, provided the water was to be used **"beneficially".** Use was usually considered beneficial if the applicant/irrigator was going to make a profit. Public interest obviously goes much wider. To some extent, it can be accepted that if the factors enumerated in **section 2(a) to (k)** of the new Act are met, the criterion of issuing licences in the "public interest" will be satisfied.

The negative test should also be applied. In other words, water use which has negative effects, not in the public interest, should not be licensed.

I) .Socio - economic impact of water use or uses to be authorised or failure to authorise the water use or uses.[242]

This calls for a comparison of the benefits of allocating the licence with the disbenefits.

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[238] *Draft Policy op cit 6*
[239] Ibid
[240] *Ibid*
[241] Section 27 (1) (c)
[242] *Section* 27 (1) (9)

It is unfortunately true that virtually no allocations can be made without impact on someone somewhere. The philosophy of dealing with this dilemma should therefore be to maximise the advantages to the greatest number of people and to minimise the negative impacts.

No water use can take place without an impact on other users downstream, however small. The question is, how much of the low flow of a river can be allocated without prejudicial impact on lower owners? The principle of **"acceptable prejudice"** should be applied, which accepts that there will be an impact, but that it should be of a magnitude small enough so as not to be significantly detrimental to the prejudiced person's operations.[243]

A negative impact which is often quoted is increased insurance on neighbouring farmers when afforestation permits (now water use licences) are issued. If this type of impact is considered, no water use will be able to be allowed anywhere. Once again, it is a case of minimising the negative impact. Authorisation may also be given if a particular use has positive socio-economic impacts.[244]

J) Investments already made and to be made by the water user in respect of the water use in question. [245]

Existing use cannot be curtailed arbitrarily without good reason. If, for reasons other than to provide for the Reserve, to rectify an over-allocation or an unfair or disproportionate water use (**sections 22 (5) and (7), compensation** will have to be paid if the user suffers severe prejudice.[246] This factor must be considered by the licensing authority, so as not to become embroiled in lengthy compensation claims with the Water Appeal Board.[247]

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[243] Draft Policy op cit 7
[244] *Ibid*
[245] Section 27 (1) (h)
[246] *Para* 4
[247] Section 22 (8)

K) The period for which the licence is to be issued

The periods for which licences for different water uses and various crops are to be valid have to be carefully considered by the responsible authority.
In addition to the crops to be irrigated, or licensed (afforestation), one would have to evaluate the strategic importance of the activity being licensed, the number of jobs dependent on the activity, the infrastructure (canning factories, sugar/paper mill) dependent on the crops and so forth.
The Licensing Authority should rely on the advice of consultative fora, Water Boards, Water User Associations, interested and affected parties, organised labour and the like.[248]

CHAPTER FIVE

CONCLUSIONS AND RECOMMENDATIONS

The vast array of legislation and policies relating to water supply and sanitation services are given expression in the City's Water Services Development Plan. However, as discovered via communication with the water services Director[249], there is much more room for improvement. The plan has to be reviewed for various reasons, but one crucial motivation for the proposed amendments is closely linked with financial constraints.

[248] *Op cit 7 at para 6*
[249] Dave Ramsay cited in Chapter 4, page 70, para 4

South African water law is still in the process of transformation, consequently strategies and proposals for adequate water services will require time to be sufficiently implemented.

The Water Services Development Plan mentions the many opportunities which the City has. The City of Cape Town is a brand name, which should be exploited to encourage people to live and work, visit, invest and trade in the City. The City is a large property owner (land, building, equipment valued at R70b) and there is potential to either sell or lease the property to generate once-off or long-term income respectively in order to fund critical projects.[250]

The City of Cape Town has addressed water Demand Management by initiating the following :[251]

1. Pressure Management – aims to reduce leakage and pipe bursts by reducing excess water pressure in the system.
2. User Education – public awareness for users to be conscious of their responsibility to use water more wisely and efficiently. School education programmes were put into place to start at and early age. This way you will ensure a generation of caretakers of the resource.
3. Elimination of Automatic Flushing Urinals – Replacement or retrofitting.
4. Leakage repairs – Focusing on repairing distribution and household leakages and leaks.
5. Tarifs, metering and Credit Control – Extend the structured water tariffs system to all water consumer categories. Implement universal and accurate metering system through installing water meters. Effective credit control.
6. Introduction of Water- Efficient Fitting – Aerators on taps, toilet tank dams and displacement bags, smaller toilet cisterns, waterless urinals and replacing high-flow shower heads.
7. Promotion of private Boreholes – It could lead to a lowering of the water table and should therefore be carefully monitored.
8. Promotion of Grey-Water Use – The use of grey-water , e.g used bath, shower or hand basin water ,as well as collecting rainwater from roofs. Health hazards and the long term impact of soaps on the environment should be monitored.

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[250] WSDP loc cit

[251] *Dwaf – Imvula Iyeza*, Western Cape Regional Newsletter, Summer Edition, 2003, pg11

There exist opportunities to enhance existing partnerships and to build new partnerships in the private and public sector to help improve service delivery.

Enabling legislation e.g. **Local Government: Municipal Systems Act** and the **Local Government: Municipal Structures Act**, offer the City of Cape Town opportunities e.g. introduction of the Executive Mayoral System. The adoption of the Executive Mayoral System will enable the City of Cape Town to speed up decision-making and fast track delivery of services. The IDP requirements allow the City of Cape Town to plan strategically for the future to ensure sustainability and to align the budget to the IDP.[252]

Main Challenges facing the City

A 2002/03 publication from Economic Development and Tourism states that the number of unemployed in the City is approximately 19.7% of the economically active population. The City of Cape Town has a relatively high unemployment rate that puts the City at risk for the negative effects of unemployment – poverty, crime, public dissatisfaction .The high level of crime in the City of Cape Town has negative impacts for the City – reduced investor confidence, reduced public confidence and negative image of the City.[253]

The HIV/AIDS/TB epidemic poses a threat for the City of Cape Town in terms of increased health care spent, reduced productivity and an increase in the number of orphans.

The housing backlog is estimated at 240 000 houses, of which 100 000 comprises of shacks in informal settlements and according to the Public Housing Directorate, this backlog is growing by 9 000 units due to in-migration and new family formation Growth of informal settlements and inability to service.

Inadequate capacity of rail, roads to accommodate growth, leading to overloading and deterioration.(R500m maintenance backlog)

The non-payment of services poses a risk to financial sustainability of the City of Cape Town. The proposed introduction of Regional Electricity Distributors (REDS) poses a threat to the City of Cape Town as it may remove the revenue accrued by the City from electricity distribution. [254]

[252] Ibid
[253] Ibid
[254] Ibid

RECOMMENDATIONS

There is a direct link between human health and water supply and sanitation services[255]. Water is an essential prerequisite to a healthy living environment.

Water shortages should be anticipated, therefore a concerted effort should be made to put into place environmental health plans, policies and by – laws that are related to sanitation and health in general.

Recycling, re – use as well as water harvesting should be encouraged to ensure the optimal use of water. Since it is a severely restricted resource, there is a duty on National, Provincial and Local Government to implement equitable redress and optimal usage of the resource.

However difficult it may be, it is imperative that the economic value of water be reiterated through education and awareness. In order to obviate the problem of water shortages, a possible method that could be implemented is water harvesting. This entails collecting rain during the winter months in tanks or suitable structures that are put in place at households, companies, universities etc. Local Government should be responsible for including this infrastructure into their building regulations for RDP housing and those in other affluent areas. Local government, with national financial and technical support, is implementing the interventions required (such as tankering in water in extreme cases) to provide water to the people.

One recent and exciting means of increasing our fresh – water resources is by desalination, which by – passes the normal hydrological cycle. The natural conversion of salt water to fresh has been known for over two thousand years. However, only recently has man been able to desalinate sea water in large quantities at an acceptable cost. Although the process of desalination is expensive, conglomerates such as mining and manufacturing companies should also invest in this process. These institutions are the largest consumers of water for their respective sectors. Their investment in desalination would be beneficial to the Department of Water Affairs and Forestry as the bulk of the funds for the project will be provided for by the private sector. DWAF should thus form an inter - relationship with the private sector where the Department should concentrate mainly on the infrastructure of the desalination plant whereas the private sector should construct the plant and maintain it.

[255] *This is featured in the figures shown in chapter 4, pg 56*

A worldwide water reduction goal has been set by the popular Johnson & Johnson Corporate. Their goal is to reduce water consumption by 10 % which is to be achieved by the year 2006.[256] The company installed a chiller plant for the Toiletries Mixing Department. Instead of using domestic water to cool the vessels, the water is cooled in the chiller plant which circulates it through the mixing vessel jacket and returns it back to the chilling plant.[257] The water is thus re - used resulting in a significant reduction in water use. It is in the interest of industries to re – use water because of the enormous quantities involved. Factories recycle water as many as thirty times. The water undergoes treatment each time to remove impurities. [258] Without this re – use of water, undertakings would have to find new sources of water and build larger treatment works. By placing greater demands on treatment, the price of water to industry would increase, so it is in their interest to re - use water.

The cost of water reduction processes should not enter the argument, for the simple reason that water is essential to life.

[256] Hatting, Pat *Chiller System saves 23 million litres of water* in J & J Communique 2003, pg3
[257] Ibid
[258] Ibid

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