Chapter Two

Overview of the National Water Act and the Effects of Past Legislation

THIS CHAPTER CONSISTS OF THREE SECTIONS:

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SECTION 1:

PRINCIPLES AND OBJECTIVES OF THE NATIONAL WATER ACT

1.1 INTRODUCTION

The National Water Act (No 36 of 1998) was published in the Government Gazette No 19182 of the Republic of South Africa, Volume 398, dated 26 August 1998 (hereafter abbreviated as the NWA). The NWA derives directly from the Fundamental Principles and Objectives for a New South African Water Law, and the National Water Policy's proposals for managing water resources (Fundamental principles listed at end of chapter).

The Act contains comprehensive provisions for the protection, use], development, conservation, management and control of South Africa's water resources, which enable the proposals in the NWP to be implemented. The Act is the principal legal instrument relating to water resources management in South Africa. The Water Supply and Sanitation Policy White Paper, 1994 and the Water Services Act, 1997 (No. 108 of 1997), which deal with the provision of potable water and sanitation services, are supplementary instruments that assist in implementing the objectives of water policy.

1.2 PRINCIPLES AND OBJECTIVES OF THE NWA

The NWA represents a fundamental reform of the law relating to water resources in South Africa, and replaces the previous Water Act of 1956. It is based on certain fundamental principles:

- Water is a **scarce natural resource** which is unevenly distributed, and occurs in many different forms all of which are part of a unitary, **inter-dependent cycle**
- While water is a natural resource that belongs to all people, discriminatory laws and practices of the past have prevented **equal access to water** and to the use of water resources

- National government is the overall authority and **ultimately responsible** for the nation's water resources and their use, including the **equitable allocation** of water for beneficial use, the redistribution of water, and international water matters
- The ultimate aim of water resources management is to achieve the **sustainable use** of water for the benefit of all users
- Protection of the **quality of water resources** is necessary to ensure sustainability in the interests of all water users
- All aspects of water resources need to be managed in an **integrated** way, and, where appropriate, management functions need to be delegated to a regional or catchment level to **enable everyone to participate.**

The main purpose of the NWA is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take account of, amongst other factors:

a) meeting the basic human needs of present and future generations
b) promoting equitable access to water
c) redressing the results of past racial and gender discrimination
d) promoting the efficient, sustainable and beneficial use of water in the public interest
e) facilitating social and economic development
f) providing for growing demand for water use
g) protecting aquatic and associated ecosystems and their biological diversity
h) reducing and preventing pollution and degradation of water resources
i) meeting international obligations
j) promoting dam safety
k) managing floods and droughts,

and, for achieving this purpose, to establish suitable institutions and to ensure that they have appropriate community, racial and gender representation.

1.3 THE NEED FOR NEW POLICY AND LEGISLATION

The first democratically elected government in South Africa and particularly the new Minister of Water Affairs and Forestry, recognised that there was an urgent need for new water policy in the country for several reasons:

1.3.1 To redress past imbalances through equitable allocation, poverty alleviation and gender mainstreaming

The riparian system of water rights in the Water Act of 1956, meant that no single organisation or institution could exercise complete authority over water throughout the country, including the government. It is essential that overall responsibility for management and allocation be vested in National Government, to ensure proper implementation of new water policy.

Apartheid provided whites with 87 percent of the land, while blacks (about 75 % of the total population) lived within ten “homeland” areas, which accounted for only 13 percent of the land. The black population in these areas sustained themselves through agriculture, local service industries, and as migrant labour in white-owned mines and industry. The average population density of the former homelands was 10 times the density of rural "white" South Africa. When labour requirements in commercial agriculture declined, black South Africans could not move to cities when they were expelled from rural white areas. Police forcibly moved blacks to the homelands; the population of the homelands grew from 4.5 million to 11 million between 1960 and 1980[28]. However, the land area of the homelands did not increase.

Of the total area of cropland in the country, 13 million hectares fall within commercial farming areas, while only 2.5 million are in small-scale farming areas in the former homelands. This imbalance, combined with other natural resource limits - including weak soils and poor rains - has resulted in extensive environmental degradation and scarcity in the homelands.

At the end of the apartheid era, twelve to sixteen million people lacked potable water supplies, and twenty-one million people lacked adequate sanitation. Seventy percent of urban blacks did not have access to running water and were forced to rely on severely contaminated river systems for their daily water needs. The water used by residents in informal settlements tends to have the highest concentrations of suspended solids and the

highest level of faecal bacterial contamination. There is a high risk in these settlements of epidemics of cholera, gastroenteritis, dysentery, parasitic infections, typhoid, and bilharzia. The level of industrial pollution is particularly severe in the former homelands, where environmental controls were nonexistent.

With an average disposable income of only one-sixteenth the white average, homeland farmers could not make the long-term investments necessary to protect or develop their land. The relatively high growth rate of the black population results in more severe scarcity of land and exacerbates the differentials in per capita land availability.

1.3.2 To provide a proper institutional framework for the water sector, establish priorities regarding the needs of the people, policy and guidelines on minimum standards and service levels regarding water and sanitation

The framework of institutions responsible for water resource management and water supply in the past was extremely complex with numerous areas of overlap and conflict and, with many areas remaining unserved. There were eleven "governments" (ten of which were homeland administrations) in addition to provincial structures, regional service providers, water boards, local governments and a large number of NGOs.
In the new set-up, National Government remains the public trustee of the nation's water resources, and is ultimately responsible for ensuring the proper management of the resources and their efficient, equitable and sustainable use. However, a new institutional framework has been created with regard to:

- restructuring within the Department of Water Affairs to improve integration and co-ordination of its diverse operations and activities
- water management institutions to implement the requirements of the National Water Act at regional level, enabling the public to participate in the management of water resources in their Water Management Area
- water services institutions to implement delivery of water and sanitation services

The responsibility for the supply of water is that of local government. It is the central government's function to ensure that this happens in terms of the norms and standards described in the government's policy. Where local government fails to perform its function, the Department of Water Affairs and Forestry is empowered to take direct action to strengthen local government and temporarily perform the functions of local government.

1.3.3 To create a framework for sustainability and investment

The share of the national budget previously enjoyed by the Department of Water Affairs and Forestry was 0.3%. With the establishment of clear policy and a commitment to achieve the policy objective of "Some for all rather than all for some", the Department has been able to substantially increase its share of the budget to more than double its previous level in less than 18 months.

Clear policy has enabled a relatively rapid deployment of funds. The policy is that the government will provide capital grants for the construction of basic services which are defined as a water supply of at least 25 litres per capita per day at a maximum cartage distance of 200m and of adequate quality. The grant includes finances for the training of communities to undertake the governance, administration, operation and maintenance of the water services as a local government function. All recurring operation, maintenance and administration costs are to be borne by the communities. If communities desire a higher level of service, they must find the finance elsewhere than from the government.

Strict adherence to the policy has had the effect of building confidence in the sector and attracting local and international private sector finance.

Clear policy is the first step towards implementation at scale, without which development strategies cannot be established.

1.4 THE EFFECTS OF PREVIOUS WATER LEGISLATION ON POVERTY AND INEQUITY

The policy and functions of the Department of Water Affairs and Forestry prior to the 1994 elections were constrained exclusively to bulk water resource management. This included the management of the larger catchments, the administration of government water control areas, the supply of bulk untreated water to water boards, water quality management and the administration of the Water Act.

The focus of the old legislation has been on water supply management.

Urban land is inequitably distributed: the township areas allocated for black South Africans are not sufficient for the numbers of people living there. These communities are also found on the periphery of the city, in the least attractive sectors - downwind from dirty industries, on poor land, and far from the city centre. Informal settlements, which emerged first within the townships and then on public land throughout the major cities, continue to grow. Both townships and settlements receive few services and lack infrastructure. The inadequacy of the infrastructure, such as sewage systems, water supplies, and energy sources, means that the urban black population relies extensively for its day-to-day needs on the local environment - including small vegetable plots and local streams, trees, and brush. Because many of these communities are located in fragile environments close to hillsides and river valleys, the environment quickly deteriorates.

Degradation and depletion of agricultural land, forests, water, and fish stocks threaten many societies around the world. However, we must also examine not only the degradation and depletion of these resources but, more generally, their scarcity. There are three types of environmental scarcity: (1) **supply-induced scarcity** is caused by the degradation and depletion of an environmental resource; (2) **demand-induced scarcity** results from population growth within a region or increased per capita consumption of a resource; (3) **structural scarcity** arises from an unequal social distribution of a resource that concentrates it in the hands of relatively few people while the remaining population suffers from serious shortages.
The three types of scarcity and their interactions produce several common social effects, including lower agricultural production, economic decline, migrations from zones of environmental scarcity, and weakened institutions.

Severe environmental scarcity causes groups to focus on narrow survival strategies, which reduces the interactions of civil society with the state. Civil society retreats, and, as a result, society is **less able to articulate effectively its demands on the state.**

1.5. Fundamental Principles FOR A NEW WATER LAW IN SOUTH AFRICA

As envisaged through the stipulations of our various 'new' pieces of water legislation and related Acts, more importantly the 1998 National Water Act, the following principles come to the fore (having been derived directly from the 'Fundamental Principles and Objectives for a New South African Water Law', and the 'National Water Policy's Proposals for Managing Water Resources'):

LEGAL ASPECTS OF WATER

Principle 1

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.

Principle 2

All water, wherever it occurs in the water cycle, is a resource common to all, the use of which shall be subject to national control. All water shall have a consistent status in law, irrespective of where it occurs.

Principle 3

There shall be no ownership of water but only a right (for environmental and basic human needs) or an authorisation for its use. Any authorisation to use water in terms of the water law shall not be in perpetuity.

Principle 4

The location of the water resource in relation to land shall not in itself confer preferential rights to usage. The riparian principle shall not apply.

THE WATER CYCLE

Principle 5

In a relatively arid country such as South Africa, it is necessary to recognise the unity of the water cycle and the interdependence of its elements, where evaporation, clouds and rainfall are linked to underground water, rivers, lakes, wetlands and the sea, and where the basic hydrological unit is the catchment.

Principle 6

The variable, uneven and unpredictable distribution of water in the water cycle should be acknowledged.

WATER RESOURCE MANAGEMENT PRIORITIES

Principle 7

The objective of managing the quantity, quality and reliability of the nation's water resources is to achieve optimum, long term, environmentally sustainable social and economic benefit for society from their use.

Principle 8

The water required to ensure that all people have access to sufficient water shall be reserved.

Principle 9

The quantity, quality and reliability of water required to maintain the ecological functions on which humans depend shall be reserved so that the human use of water does not individually or cumulatively compromise the long term sustainability of aquatic and associated ecosystems.

Principle 10

The water required to meet the basic human needs referred to in Principle 8 and the needs of the environment shall be identified as "the Reserve" and shall enjoy priority of use by right. The use of water for all other purposes shall be subject to authorisation.

Principle 11

International water resources, specifically shared river systems, shall be managed in a manner that optimises the benefits for all parties in a spirit of mutual cooperation. Allocations agreed for downstream countries shall be respected.

WATER RESOURCE MANAGEMENT APPROACHES

Principle 12

The national government is the custodian of the nation's water resources, as an indivisible national asset. Guided by its duty to promote the public trust, the national government has ultimate responsibility for, and authority over, water resource management, the equitable allocation and usage of water and the transfer of water between catchments and international water matters.

Principle 13

As custodian of the nation's water resources, the national government shall ensure that the development, apportionment, management and use of those resources is carried out using the criteria of public interest, sustainability, equity and efficiency of use in a manner which reflects its public trust obligations and the value of water to society while ensuring that basic domestic needs, the requirements of the environment and international obligations are met.

Principle 14

Water resources shall be developed, apportioned and managed in such a manner as to enable all user sectors to gain equitable access to the desired quantity, quality and reliability of water conservation and other measures to manage demand shall be actively promoted as a preferred option to achieve these objectives.

Principle 15

Water quality and quantity are interdependent and shall be managed in an integrated manner, which is consistent with broader environmental management approaches.

Principle 16

Water quality management options shall include the use of economic incentives and penalties to reduce pollution; and the possibility of irretrievable environmental degradation as a result of pollution shall be prevented.

Principle 17

Water resource development and supply activities shall be managed in a manner which is consistent with the broader national approaches to environmental management.

Principle 18

Since many land uses have a significant impact upon the water cycle, the regulation of land use shall, where appropriate, be used as an instrument to manage water resources within the broader integrated framework of land use management.

Principle 19

Any authorisation to use water shall be given in a timely fashion and in a manner which is clear, secure and predictable in respect of the assurance of availability, extent and duration of use. The purpose for which the water may be used shall not arbitrarily be restricted.

Principle 20

The conditions upon which authorisation is granted to use water shall take into consideration the investment made by the user in developing infrastructure to be able to use the water.

Principle 21

The development and management of water resources shall be carried out in a manner which limits to an acceptable minimum the danger to life and property due to natural or manmade disasters.

WATER INSTITUTIONS

Principle 22

The institutional framework for water management shall as far as possible be simple, pragmatic and understandable. It shall be self-driven and minimise the necessity for state intervention. Administrative decisions shall be subject to appeal.

Principle 23

Responsibility for the development, apportionment and management of available water resources shall, where possible and appropriate, be delegated to a catchment or regional level in such a manner as to enable interested parties to participate.

Principle 24

Beneficiaries of the water management system shall contribute to the cost of its establishment and maintenance. on an equitable basis.

WATER SERVICES

Principle 25

The right of all citizens to have access to basic water services (the provision of potable water supply and the removal and disposal of human excreta and waste water) necessary to afford them a healthy environment on an equitable and economically and environmentally sustainable basis shall be supported.

Principle 26

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.

Principle 27

While the provision of water services is an activity distinct from the development and management of water resources, water services shall be provided in a manner consistent with the goals of water resource management.

Principle 28

Where water services are provided in a monopoly situation, the interests of the individual consumer and the wider public must be protected and the broad goals of public policy promoted.

SECTION 2:
NATIONAL WATER RESOURCES STRATEGY

2.1. OVERVIEW OF THE NATIONAL WATER RESOURCES STRATEGY

The Act requires the Minister, as soon as reasonably practicable, to establish a National Water Resource Strategy (NWRS) by publishing a Notice in the Government Gazette. The NWRS provides the framework for the protection, use, development, conservation, management and control of water resources for the country as a whole, and the framework within which water will be managed at a regional level as well.

The purpose of the National Water Resource Strategy is to:

- facilitate the proper management of the nation's water resources
- provide a framework for the protection, use, development, conservation, management and control of water resources for the country as a whole
- provide a framework within which water will be managed at regional or catchment level, in defined water management areas
- provide information about all aspects of water resource management
- identify water-related development opportunities and constraints.

The NWRS is binding on all authorities and institutions that exercise powers or perform duties under the NWA. The NWRS must be reviewed at intervals of not more than five years, and may be amended through appropriate consultation with stakeholders.

2.2 CONTENT OF THE NATIONAL WATER RESOURCES STRATEGY

It must provide information about ways in which water resources will be managed, including the institutions to be established. It must also provide quantitative information about the present and future availability of and requirements for water in each of the 19 water management areas, and propose interventions by which the two may be balanced ("reconciled"). The Strategy must also quantify the proportion of available water in each water

management area which falls under the direct control of the Minister in terms of her or his national responsibilities.

NATIONAL WATER RESOURCE STRATEGY

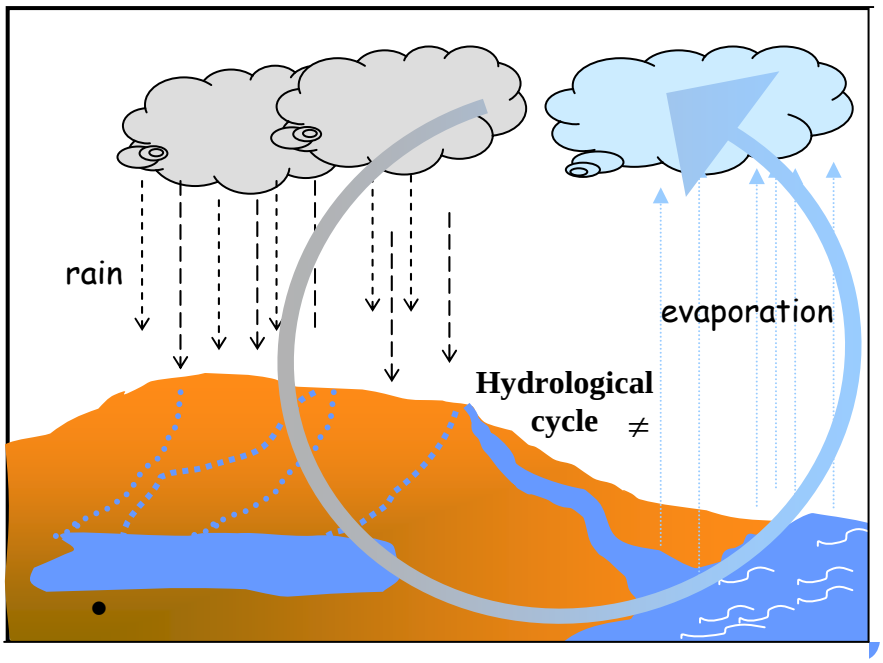
The National Water Resource Strategy must:

- Set out strategies, objectives, plans, guidelines and procedures for the overall management of the national water resource
- Determine how much water must be 'reserved' for basic human needs and for the environment (called the Reserve)
- Provide for international obligations (water resources shared with neighbouring countries through international agreements)
- Provide for future water needs
- Provide for water for strategic use (for example national power generation)
- Determine water management areas
- Determine how much water is available in each water management area
- Provide for transfer of water from water management areas that have surpluses to water management areas that are short of water
- Set principles for water conservation and water use
- Set targets for water quality for different water resources
- Provide for the establishment of water resource management institutions (for example catchment management agencies) and the inter-relationships between

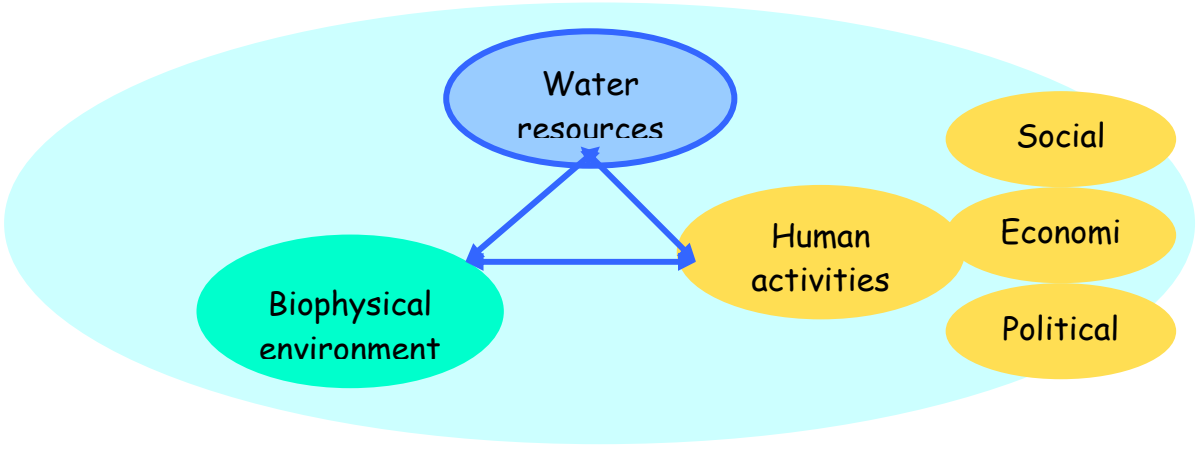
2.3 NATIONAL WATER RESOURCE STRATEGY ADDRESSING SUSTAINABILITY, EQUITY AND EFFICIENCY

The Act recognises that to achieve the sustainability, equity and efficiency, water resources need to be managed in an **integrated** manner. This is related to the hydrological cycle.

This cycle is called the **hydrological cycle**.



The different water resources (rivers, wetlands, estuaries, and groundwater) are all linked to each other by the hydrological cycle. Water resources are also affected by the surrounding biophysical environment (people, plants, animals) and human activities that impact on them.



Because all water resources are linked to each and are affected by the biophysical environment and human activities, water resources must be managed taking into account the *relationships* between water, the biophysical environment, social, economic and political factors. This requires *integrated management*.

SECTION 3:
INTEGRATED WATER RESOURCES MANAGEMENT

3.1 OVERVIEW OF IWRM

Water resources cannot be managed in isolation from other natural resources. Availability of fresh water is governed by the water cycle, in which rain falls from the clouds, flows over the land or sinks through the ground (where it may be stored as groundwater), and finally flows through rivers, lakes and dams towards the sea. Evaporation from surface waters, transpiration from plants and trees leads to cloud formation, and hence the cycle continues. The use of land has a major impact on water resources. There are also complex interactions in the water resource environment between water, sediment, animals, plants and aquatic life. Human activities can have the most significant effect on the quality and quantity of water resources, such as waste disposal, farming, air pollution, etc. The complexity of these interactions calls for an integrated approach to water resource management.

Integrated water resource management (IWRM) may be described then as an evolving process for the co-ordinated planning and management of water, land and environmental resources for their equitable and sustainable use. This is accomplished by using a balance of technological and social approaches.

IWRM is simultaneously a philosophy, process and strategy to achieve sustainable balance between utilization and protection of water resources in a particular catchment area, taking account of inter-dependencies with other catchments. Catchment management recognizes the need for mutual dependence of water resource and land use management, and is based in consensual participation by relevant stakeholders, communities and organs of state.

The large number of activities in a catchment that impact on water resources are managed, overseen or administered by a number of institutions, such as Government Departments (national, provincial and local), the private sector,

environmental groups, NGOs, etc. For practical implementation of IWRM, these activities need to be managed collectively, which calls for co-operation and co-ordination between the various institutions.

Integrated water resources management should be implemented in accordance with the general principles enshrined in the South African Constitution as well as with the principles upon which the Policy and the Act are based. The following principles are relevant to IWRM:

- *Equity* in access to water resources, benefits and services, particularly for those who have historically not benefited from water resources management, such as women and the poor, is a fundamental principle that underlies the Policy and the Act.

- *Sustainability* in terms of water resources and the ecology, socio-economic development, which is dependent upon these resources, and the institutions responsible for catchment management, is fundamental to the Policy and the Act.

- *Optimal beneficial use* (or efficiency) has both social and economic elements, and is one of the fundamental principles that underlie the Policy and the allocation of water resources.

- *Redress* of past racial and gender discrimination, to facilitate equity and promote social beneficial use.

- *Local participation* by stakeholders in decision-making about water resources management, based on transparency and appropriate mechanisms.

- *Representivity* and inclusively to ensure that all stakeholder interests, needs and values are considered as part of the catchment management process, particularly of marginalized communities such as women and the rural poor.

- *Subsidiarity and self-regulation* requires DWAF to promote the devolution of responsibility to the lowest level consistent with effective functioning of the system.

- *Viability* of organizations involved in catchment management requires the performance of those functions that can be supported by the available financial and human resources.

- *Integration* of water resources management functions within water management institutions is necessary for efficient and sustainable management in a water scarce country such as South Africa.

- *Alignment* of water resources management policies, practices and procedures with other related departments' functions, (through coordination and harmonization), thereby promoting effective implementation of catchment management.

- *Transparency* and information sharing about water resources management, to foster cooperation with stakeholders and encourage support for decisions.

3.2 CATCHMENT MANAGEMENT AGENCIES

Since catchment management is fundamental within the IWRM framework (as shown above), CMAs will accordingly play a pivotal role in integrated water resource management. The purpose of establishing CMAs is for national government to delegate water resource management to the catchment level, and to involve local communities. The CMA, in nature will be a public entity established to manage planning, implementation and management of local water resources. It will also carry the role of a stakeholder body that will perform functions and deliver services to its stakeholders.

The aim is to establish CMAs for all nineteen water management areas throughout the country. The Minister, acting through the DWAF regional offices, will act as the catchment management agency in water management areas where CMAs have not yet been established, or where they do not function properly.

The initial functions of a CMA are to:

- investigate and advise on the protection, use, development, conservation, management and control of the water resources in its water management area
- develop a catchment management strategy

- co-ordinate the activities of water users and of the water management institutions
- promote the implementation of any applicable water services development plan
- promote community participation

DWAF will, over time, delegate other functions to catchment management agencies, which in the long term will result in CMAs authorising water use.

A more comprehensive overview of CMAs can be found in Chapter Three.

SUMMARY OF CHAPTER 2

SECTION 1: PRINCIPLES AND OBJECTIVES OF THE NATIONAL WATER ACT

The NWA derives directly from the Fundamental Principles and Objectives for a New South African Water Law, and the National Water Policy's proposals for managing water resources (Fundamental principles listed at end of chapter).

National government is the overall authority and **ultimately responsible** for the nation's water resources and their use, including the **equitable allocation** of water for beneficial use, the redistribution of water, and international water matters.

The ultimate aim of water resources management is to achieve the **sustainable use** of water for the benefit of all users.

Protection of the **quality of water resources** is necessary to ensure sustainability in the interests of all water users. Other important objectives are:

- promoting equitable access to water
- providing for growing demand for water use
- reducing and preventing pollution and degradation of water resources
- water management institutions to implement the requirements of the National Water Act at regional level, enabling the public to participate in the management of water resources in their Water Management Area
- water services institutions to implement delivery of water and sanitation services

SECTION 2: NATIONAL WATER RESOURCES STRATEGY

The NWRS provides the framework for the protection, use, development, conservation, management and control of water resources for the country as a whole, and the framework within which water will be managed at a regional level as well. It must provide information about ways in which water resources will be managed, including the institutions to be established.

SECTION 3: INTEGRATED WATER RESOURCES MANAGEMENT

Water resources cannot be managed in isolation from other natural resources. The use of land has a major impact on water resources. There are also complex interactions in the water resource environment between water, sediment, animals, plants and aquatic life. *Integration* of water resources management functions within water management institutions is necessary for efficient and sustainable management in a water scarce country such as South Africa.

CMAs will play a pivotal role in integrated water resource management. The purpose of establishing CMAs is for national government to delegate water resource management to the catchment level, and to involve local communities. The CMA, in nature will be a public entity established to manage planning, implementation and management of local water resources. It will also carry the role of a stakeholder body that will perform functions and deliver services to its stakeholders.