

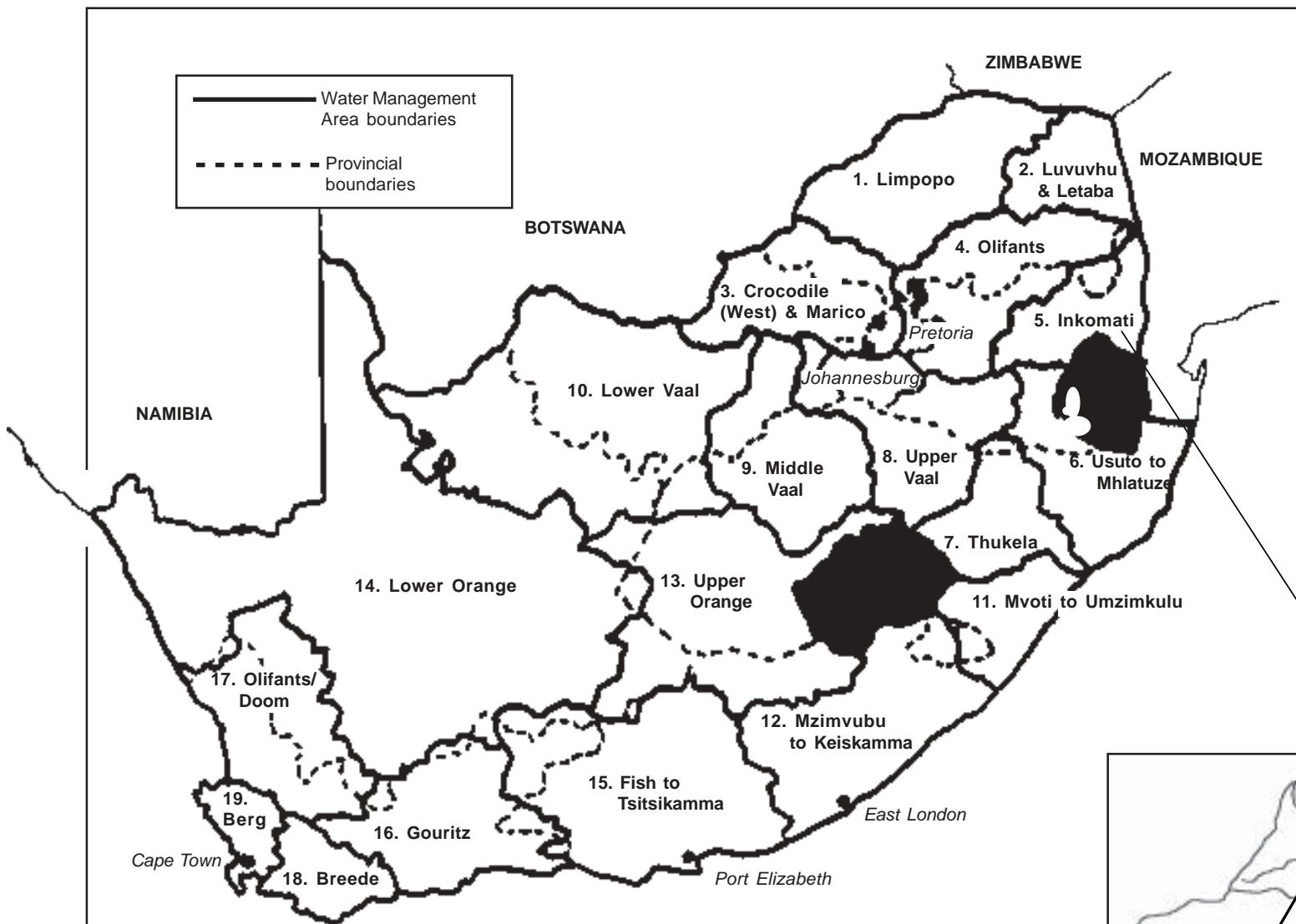
# New ways of managing water

*Our new water laws have brought with them new ways of managing water, and new ways of looking at and working towards addressing some of the challenges facing us as we try to ensure that everyone has access to sufficient water.*

Management becomes more important when a productive resource - like water - is scarce. As we approach the limit of what is available, we need to manage what we have more carefully, and to set up structures and institutions that can help to ensure wise decisions are made about how best to use the water we have, implementation of good management practices, and equitable access for all.

Our new water legislation recognises that the most sensible and effective way of managing water is within the natural catchment areas that determine how much water is available in an area. It has defined 19 Water Management Areas (WMAs) that will form the major units for water management. Each of these areas is a major catchment. Within each large catchment are several subcatchments. The Sand River Catchment is a subcatchment in the Inkomati Water Management Area.

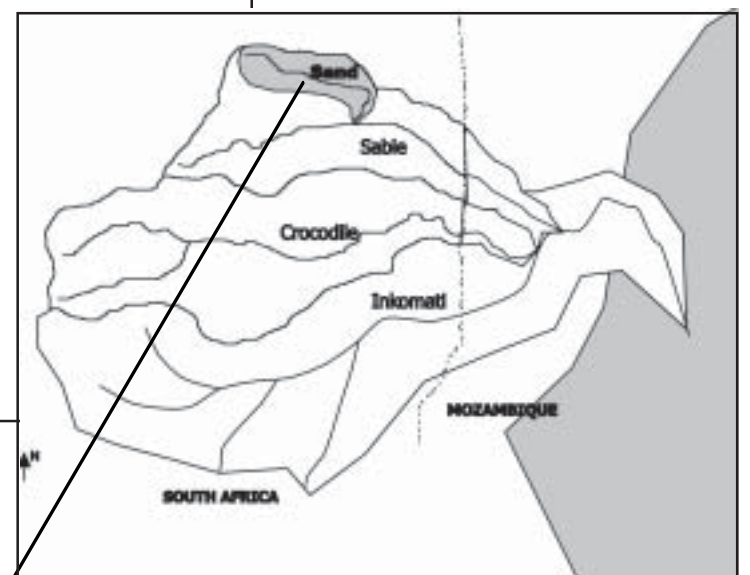
Water Management Areas are defined in the National Water Resource Strategy, which arises from the National Water Act. The National Water Act defines a Water Management Area as "an area established as a management unit in the national water resource strategy within which a catchment management agency will conduct protection, use, development, conservation, management and control of water resources."



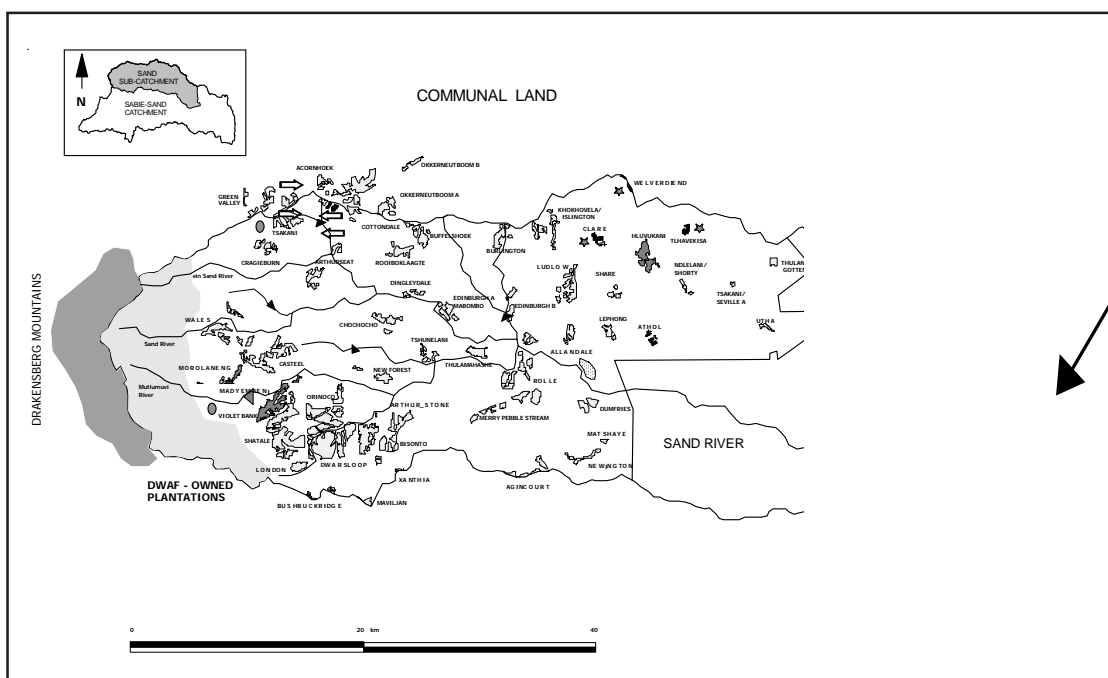
This map shows the boundaries of South Africa's 19 Water Management Areas and South Africa's provincial boundaries. As you can see, they do not match. This mismatch makes administering access to water difficult and complicated. A Catchment Management Agency is responsible for allocating water in a Water Management Area. However, most Water Service Authorities and Providers operate at a provincial or local government level.

We live in the Inkomati Water Management Area. This area is the catchment for the Inkomati River.

11 of South Africa's 19 Water Management Areas have less water available than is needed

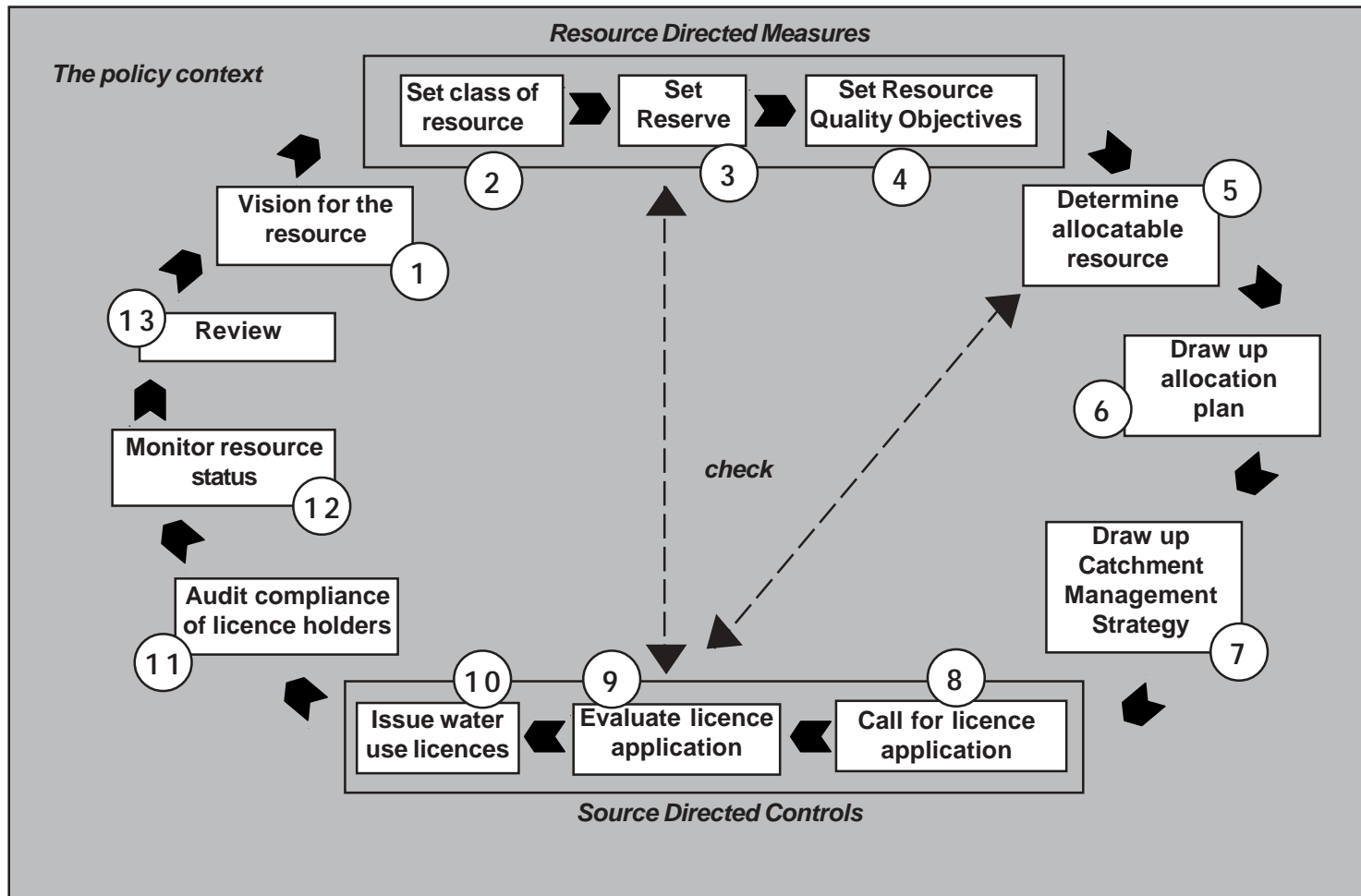


The Sand River is a tributary of the Sabie, which joins the Inkomati River. The Sand River Catchment is a sub-catchment of the larger Inkomati River Catchment.



# The management framework

Our new ways of managing water demand a new management framework. The new management framework, illustrated below, makes an important distinction between 'resource directed measures' and 'source directed control'.



## What are 'resource directed measures'?

Resource directed measures work towards managing the 'resource' - in other words, our water resources. These include our rivers, dams, groundwater, wetlands, estuaries, and the aquatic ecosystems that support them.

## What are 'source directed controls'?

'Source directed controls' aim to manage how we access water, and our rights and obligations towards it.

*In very simple terms, resource directed measures deal with 'water in rivers', and source directed controls deal with how we access water.*



## An explanation of the water management cycle...

- 1 Vision for the resource**  
Water managers, with public participation, need to define their aims and objectives and deliver a vision of how they want their catchment to be.
- 2 Set class of resource**  
Water managers, with public participation, decide on the state they wish their water resources to be in. They select a class of river (see unit 7) to manage for. The class they select will determine their management actions.
- 3 Set Reserve**  
Water managers will determine how much water must be allocated to meet the Human Basic Needs Reserve and the Ecological Reserve.
- 4 Set Resource Quality Objectives**  
How will we tell if we are reaching our goal of managing our water resource for a certain class? In this step, water managers set smaller objectives that will help us work towards our goal.
- 5 Determine allocatable resource**  
After allocating water for the Reserve, how much is available to allocate for other uses? This is investigated at this step.
- 6 Draw up allocation plan**  
The next stage is to draw up a plan for allocating the available water. This plan must work towards equitable access, and the greatest possible benefit for catchment residents.
- 7 Draw up Catchment Management Strategy**  
Using the information they have gathered and the DWAF framework, water managers will need to draw up an integrated plan for managing the water resources and demand for water in their water management area.
- 8 Call for licence application**  
Water users and potential water users will need to apply for permission to use water. They will be charged for the amount of water they are allocated..
- 9 Evaluate licence application**  
Bearing the principles of equity, efficiency and sustainability in mind, applications will be evaluated.
- 10 Issue water use licences**  
Those whose applications have been successful will be issued with licences to use water.
- 11 Audit compliance of licence holders**  
Water managers will need to check that licence holders are using the correct amount of water for the correct purposes in agreed to ways.
- 12 Monitor resource status**  
The state and condition of our water resources will need to be constantly monitored
- 13 Review**  
Water managers need to review progress so far and how things are working. Are there adjustments they could make that would improve water management?

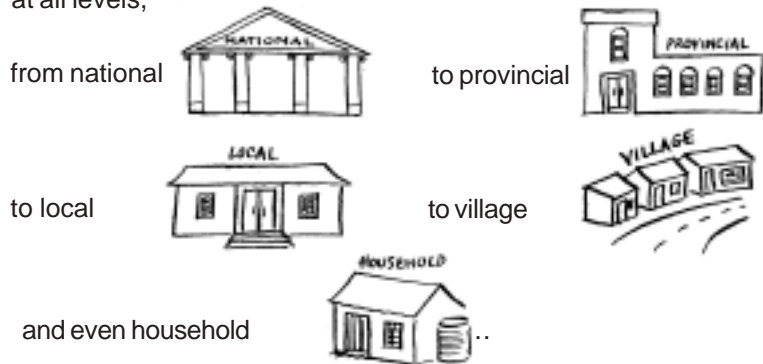
**The cycle begins again!**

# The legal framework

*Our policies and legislation form an enabling framework for water management in South Africa. This framework commits us, at all levels, to working towards equitable access to water for all South Africans, and better management systems.*

## A firm foundation...

Our new management framework is shaped by and made possible by an **enabling** legal framework. This legal framework shapes work with water and access to water at all levels,

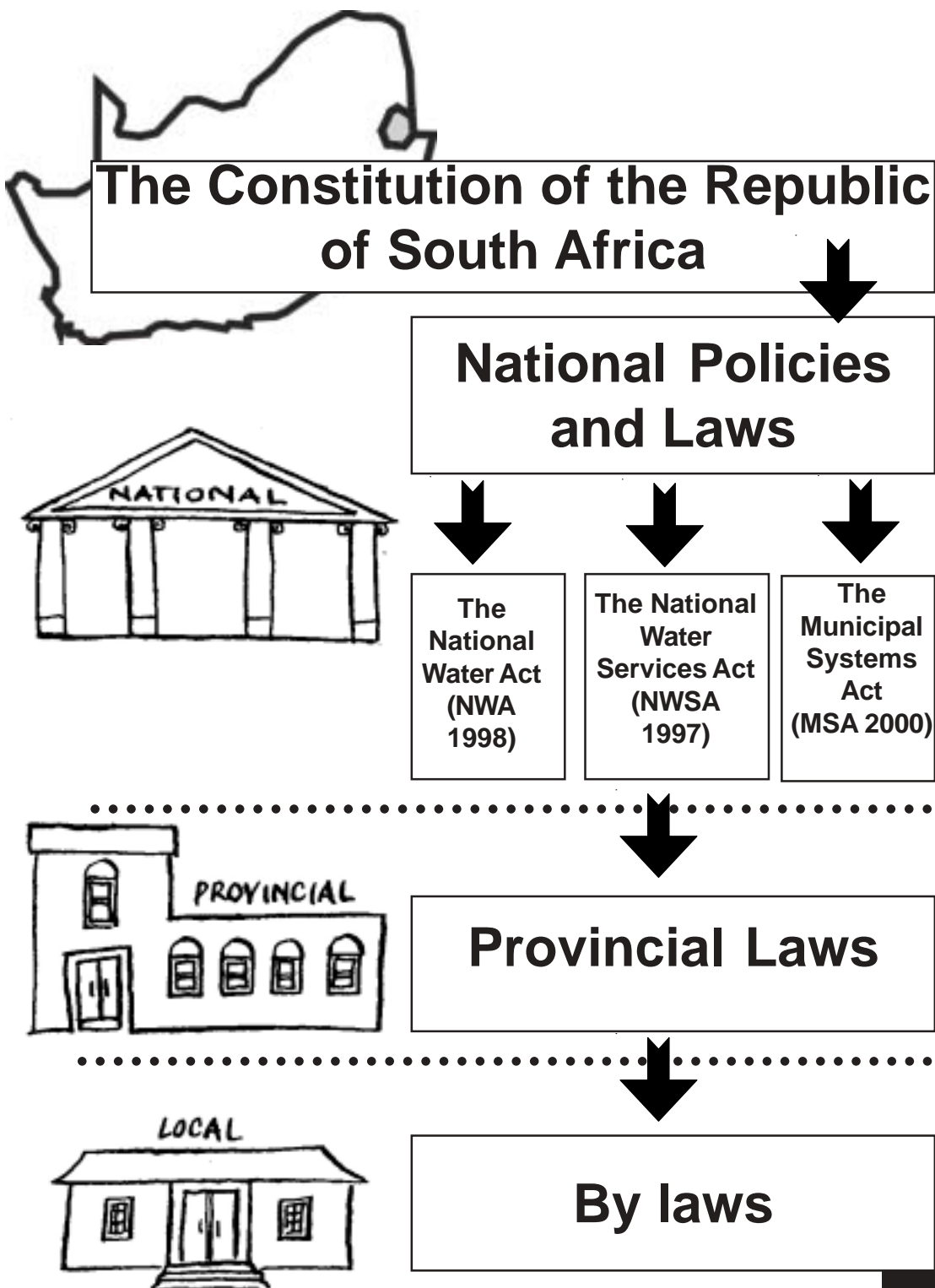


The legal framework is based on our constitution. The Constitution of the Republic of South Africa commits us all to upholding the principles and letter of the law, and commits our government to working 'progressively' towards providing all South Africans with equitable access to sufficient water.

All of our laws are based on principles and policies. The most important principles for the water sector, listed on the right, are drawn from South Africa's National Water Policy. They need to be taken account of and reflected in water legislation, planning and management at all levels: national, provincial and local.

## The key principals, which guide water management in South Africa are that:

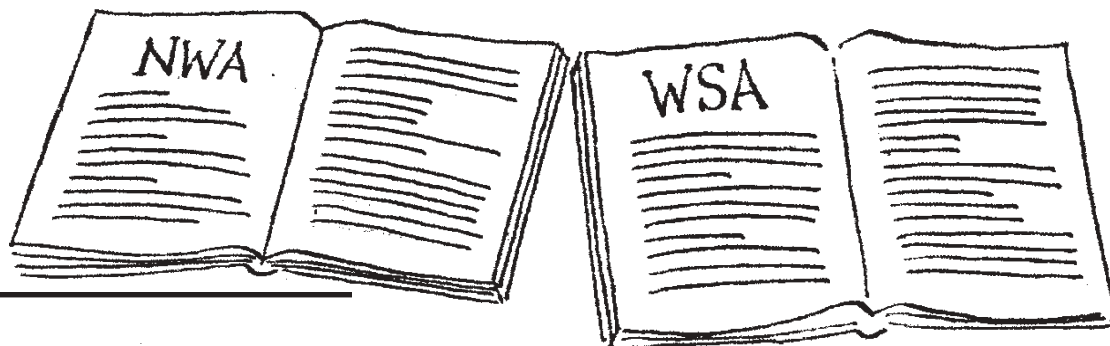
- 1) South Africa's **water resources are an indivisible national asset.**
- 2) **National government will act as the custodian of the nation's water resources** and its powers will be exercised as a public trust.
- 3) **All water in the cycle** whether on land, underground or in surface channels, falling on, flowing through or infiltrating between such systems, **is part of the common resource** and will be subject to common approaches.
- 4) Only the water required to meet basic human needs and maintain environmental sustainability will be guaranteed as a right. This will be known as the **Reserve**.
- 5) In shared river basins, Government will be empowered to give priority over other uses to ensure that the **legitimate requirements of neighbouring countries can be met.**
- 6) All other water users will be recognised only if they are **beneficial in the public interest.**
- 7) These other water users will be subject to a **system of allocation** that promotes use which works towards achieving equitable and sustainable economic and social development.
- 8) The new system of allocation will take into consideration the **investments made by the user** in infrastructure for water use.
- 9) The new system of allocation will be implemented in a phased manner, **beginning in water management areas which are already under stress.** This system of allocation will use water pricing, limited term allocations and other administrative mechanisms to bring supply and demand into balance in a manner which is beneficial in the public interest.
- 10) The **riparian system of allocation**, in which the right to use water is tied to the ownership of land along rivers, **will be abolished.** Transitional arrangements will, over time, ensure an orderly, efficient and gradual shift in water use allocation as and when necessary.
- 11) **Water use allocations will no longer be permanent**, but will be given for a reasonable period, and provision will be made to enable the transfer or trade of these rights between users.
- 12) To promote the efficient use of water, the policy will be to **charge users for the full financial costs of providing access to water**, including infrastructure development and catchment management activities. This will be done on an equitable basis.
- 13) All water use, wherever in the water cycle it occurs, will be subject to a **catchment management charge**, which will cover actual costs incurred.
- 14) All water use, wherever in the water cycle it occurs, will be subject to a **resource conservation charge** where there are competing beneficial uses or where such use significantly affects other users
- 15) **Using rivers and other water resources to dispose of wastes** will also incur a catchment management charge which will cover actual costs, and a resource conservation charge where there are competing beneficial uses for water and/or other users are significantly affected.
- 16) To promote **equitable access to water for disadvantaged groups for productive purposes** such as agriculture, some or all of these charges may be waived for a determined period where this is necessary for them to be able to begin to use the resource.
- 17) To promote **equitable access** to water for basic human needs, provision will also be made for some or all of these charges to be waived.
- 18) All major water use sectors must develop a **water use, conservation and protection policy**, and regulations will be introduced to ensure compliance with the policy in key areas.
- 19) In the long term, since water does not recognise political boundaries whether national or international, its management will be carried out in **regional or catchment water management areas** (which will coincide either with natural river catchment, group of catchments, sub catchments or areas with linked supply systems with common socio-economic interests).
- 20) Provision will be made for the phased **establishment of catchment management agencies**, subject to national authority, to undertake water resources management in these water management areas.
- 21) Provision may be made to allow for the development and operation of **national water infrastructure which links regional catchments and systems** to be transferred to a public utility established for that purpose.



# Two important water laws

*The two most important laws governing the water sector are the National Water Act (NWA 1998) and the National Water Services Act (WSA 1997). They have introduced new ways of thinking about, managing and working with water.*

The new water policy in South Africa sets out a framework for the management of water and the provision of water services that is very different from the way things were done in the past. This difference is clearly reflected in the new national water policy and the two main laws that have been derived from it. The two laws are: the National Water Act (1998) and the Water Services Act (1997). The approach adopted by the national water policy of South Africa can be summed up in the following slogan: “**Some, for all, forever**”. This is a very important slogan in that it captures, in one sentence, all the issues raised by the National Water Policy and consequently the issues that are covered by the two Acts. This slogan actually has its roots in the Constitution, which takes access to “sufficient food and water to meet basic human needs,” as a human right (*some, for all*). It also recognises that we need to plan so that we will have enough water for present and future generations (*for ever*). In the past, rural areas (especially the homelands), were the last to be considered when water allocations were made. The Sand River Catchment is an example of an area where water services were poorly provided for. But now the Constitution, the National Water Policy and two important laws provide us with clear guidelines for providing “some, for all, for ever”.



## National Water Act (NWA) No 36 of 1998

The National Water Act provides for the **protection of the quality of water resources** and for the **integrated management of water resources** with delegation of powers to institutions at **regional and catchment level**, within defined water management areas. South Africa is divided into 19 water management areas. The Sand River falls within the Inkomati Water Management Area.

The main object of the Act is to provide for the management of the nation’s water resources so as to enable the achievement of **sustainable use of water** for the benefit of all water users. To that end it is necessary to provide for the **protection of the quality** of water resources and for the **integrated management** of water resources with delegation of powers to institutions at regional or catchment level, so as to enable **everyone to participate** in the processes.

### Purpose

The purpose of the Act is to ensure that South Africa’s water resources are protected, used, developed, conserved, managed and controlled in ways which take into account:

- meeting the basic human needs of present and future generations
  - promoting equitable access to water
  - redressing the results of past racial and gender discrimination
  - promoting the efficient, sustainable and beneficial use of water in the public interest
  - facilitating social and economic development
  - providing for growing demand for water use
  - protecting aquatic and associated ecosystems and their biological diversity
  - reducing and preventing pollution and degradation of water resources
  - meeting international obligations
  - promoting dam safety
  - 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.

### The National Water Act:

- deals with the management of water as a natural resource
- deals with water in rivers, lakes and underground

## Water Services Act (WSA) no. 108 of 1997

The Water Services Act complements the National Water Act. Its aim is to provide a developmental framework for water services by clearly defining the **different roles and responsibilities** of the different spheres of government. This is to be effected in a manner consistent with the constitutional responsibility of local government to deliver services.

### Purpose

Legislates the municipal function of providing water supply and sanitation services.

### Overall Objectives

- delegates the water services authority role to municipalities
- guides municipalities on how to look after the interests of their consumers
- clarifies the roles of other water services institutions (such as water service providers and water boards and water services committees).

The **objectives** of the act are to ensure:

- the right of all South Africans to access for basic water supply and sanitation necessary to secure sufficient water
- an environment not harmful to human health or well-being
- the setting of national standards and norms and standards for tariffs in respect of water services
- the preparation and adoption of water services development plans by water service authorities
- a regulatory framework through local government for water services institutions and water service intermediaries
- the establishment and disestablishment of water boards and water services committees and their duties and powers
- the monitoring of water services and intervention by the Minister or by the relevant province
- financial assistance to water services institutions
- the gathering and dissemination of information in a national information system
- the accountability of water services providers
- the promotion of effective water resource management and conservation by different levels of government

### The Water Services Act:

- deals with the management of water services
- deals with ways of accessing water and with sanitation

# Our water rights

South Africa is one of the few countries in the world that specifically recognises peoples' right to water in its Constitution. This stated right means that the government of South Africa, its institutions, and people have obligations with regard to water and associated human rights.

## What our Constitution says...

The Constitution, under Chapter 2, has many relevant provisions that relate to the right to sufficient water:

### Section 7(2): Rights

The State must respect, protect, promote and fulfil the rights in the Bill of Rights

### Section 26: Health Care, Food, Water and Social Security

- 1) Everyone has the right to have access to:
  - b) sufficient food and water
- 2) The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of each of these rights.

### Section 9: Equality

- 1) Everyone is equal before the law...
- 2) Equality includes the full and equal enjoyment of all rights and freedoms.

### Section 24: Environment

Everyone has the right:

- a) to an environment that is not harmful to their health or well being and,
- b) to have the environment protected for the benefit of present and future generation, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use

of natural resources while promoting justifiable economic and social development

### Section 39: Interpretation Clause

1) When interpreting the Bill of Rights, a court, tribunal or forum:

- a) must promote the values that underlie an open and democratic society based on human dignity, equality, and freedom;
- b) must consider international law; and
- c) may consider foreign law

All of these clauses of the Bill of Rights are related to the right to water.

Other human rights have a connection with the right to water, among them:

### Right to Housing:

The right to adequate housing implies access to safe drinking water, sanitation and washing facilities.

### Right to Food:

It is not difficult to see the importance of water in relation to food security. Water is essential for agriculture and much of the food in rural areas result from farming.

### Right to Life:

The link between the right to water is obvious, as without water human beings cannot live for more than a few days.

### Right to Healthy Environment:

The right to water is closely linked with that of a healthy environment. South Africa considers the link between the environment and water as a driving force behind its water policies and legislation.

### Right to Health:

Unsafe water can lead to a number of diseases, including cholera. In the past ten years, diarrhoea has killed more children than all those lost to war in almost 60 years since the Second World War. A child dies every 15 seconds from diarrhoea, caused largely by poor sanitation and water supply. The right to health includes not only appropriate health care, but also to those factors that determine good health. These include access to safe drinking water and adequate sanitation. Having enough water to maintain good hygiene and prevent malnutrition is vital. Ensuring that people drink enough water, and hygienic practices like washing hands with soap, are closely related to the right to health.

## What are we entitled to?

The right to water can be said to entitle everyone to **sufficient, safe, acceptable, physically accessible** and **affordable** water for personal and domestic uses.

With regard to **availability**, water supply for each person should be sufficient and continuous for personal and domestic uses. This includes water for drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene.

Adequate **quality** means that water for personal and domestic use must be safe, therefore free from micro-organisms, chemical substances and radiological hazards. In addition it must be of an acceptable colour, odour and taste.

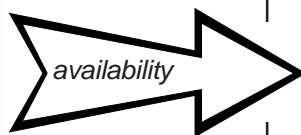
**Accessibility** means that water and water facilities and services have to be accessible to everyone without discrimination. We can break accessibility down into four categories:

**1. Physical accessibility:** meaning that water should be within safe physical reach for all sections of the population. In addition water must be accessible within the immediate vicinity of each household, education institution and workplace.

**2. Economic accessibility:** water must be affordable to all.

**3. Non-discrimination:** this is based on the principle of equity, meaning that, water must be available to everyone, including the most vulnerable and marginalised sections of the population.

**4. Information accessibility:** this includes the right to seek, receive and impart information concerning water issues. People must be allowed and encouraged to participate in decision-making processes within any policy, programme and strategy concerning water.



25L  
per person  
25 litres of clean water per person per day



per person



per 24hrs



200m

Available not more than 200 metres from your home.



# A planning framework

*New water legislation and management frameworks mean that we need to establish new frameworks for planning. These new frameworks need to work towards fulfilling our constitutional rights to sufficient water and to information about and participation in water management activities. Some planning can be done at a national level, but other planning must take place at a local level.*

## At a National Level...

The most important planning documents at this level are:

- The **National Water Resource Strategy (NWRS)**
- The **Integrated Rural Development Strategy (IRDS)**
- The **Integrated Strategic Plans (ISPs)** for Water Management Areas

National government, the Office of the President, and the Minister and Ministry of Water Affairs and Forestry are the chief institutions responsible for planning at this level. They are obliged to respect constitutional rights and obligations in this process.



## At a Water Management Area Level...

The most important planning documents at this level are:

- The **Catchment Management Strategy (CMS)** (see p 8)
- Local government **Integrated Development Plans (IDPs)**

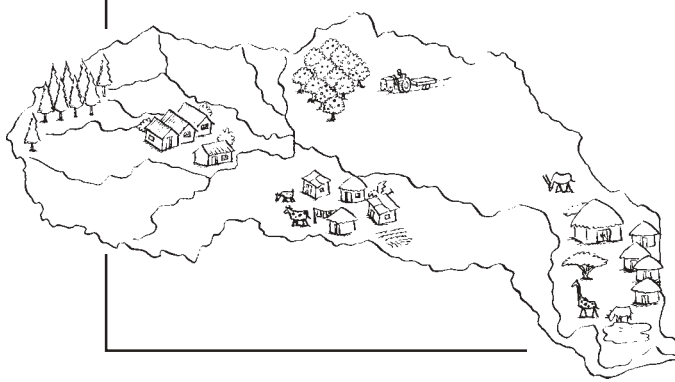
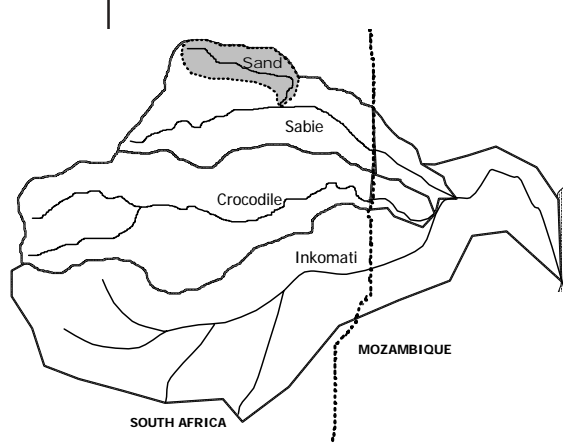
Catchment Management Agencies, Provincial and Local Governments all have a role to play in planning at this level. Integrated planning, that takes water needs for all sectors into account, is the ideal that we are aiming for.

## At a Sub-catchment Level...

The most important planning functions at this level include:

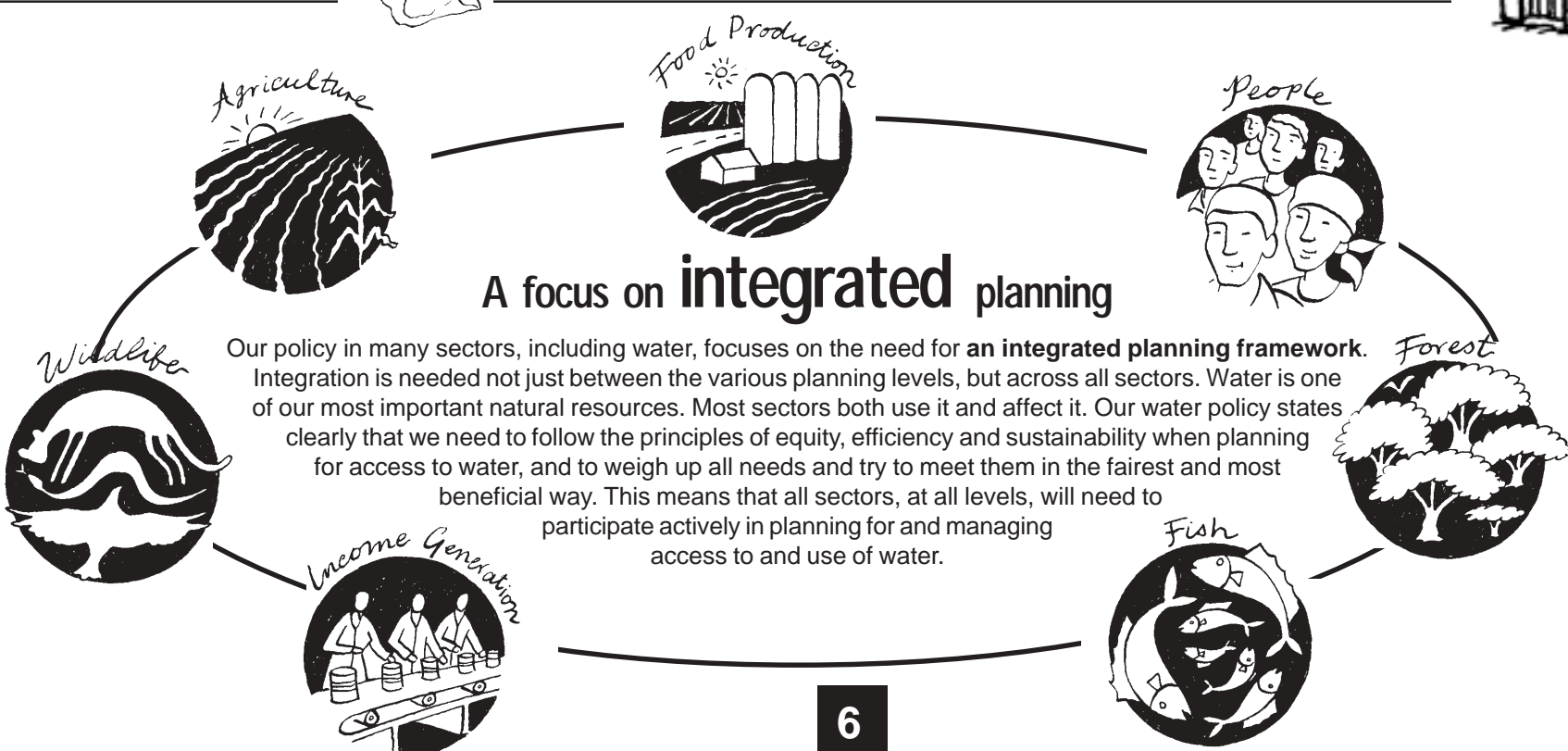
- Ward planning
- Village planning
- Household planning

It is only at this level that we will see the real results of integrated catchment management. Local level planning processes and implementation is essential for achieving our constitutional rights.



## A focus on integrated planning

Our policy in many sectors, including water, focuses on the need for an **integrated planning framework**. Integration is needed not just between the various planning levels, but across all sectors. Water is one of our most important natural resources. Most sectors both use it and affect it. Our water policy states clearly that we need to follow the principles of equity, efficiency and sustainability when planning for access to water, and to weigh up all needs and try to meet them in the fairest and most beneficial way. This means that all sectors, at all levels, will need to participate actively in planning for and managing access to and use of water.



# Institutional arrangements

*What institutions do we need to make sure our rights to water are met? The process of accessing water is complicated. The law sets out an institutional framework that should work towards the goal of access for all. We are working towards establishing the institutions needed.*

## Getting water to people...

The basic processes of protecting, supplying and treating water in South Africa is governed by law. The law is very clear about who should be responsible for these functions. The various institutions responsible for water supply and treatment include:

- the Minister of Water Affairs
- the Department of Water Affairs and Forestry (DWAf)
- Catchment Management Agencies (CMAs)
- Water Services Providers (WSPs)
- Water Services Authorities (WSAs)
- Water Boards (WBs)
- Water Services Committees (WSCs)
- Water Services Intermediaries (WSIs)
- Water User associations (WUAs)

One of the goals of the new water law is to achieve the greatest possible degree of **local community involvement** in the provision of water services. For this reason a large proportion of the decision making powers regarding water provision and sanitation rest with local authorities.

The relevant authorities to which these powers, functions and responsibilities are to be handed are the following:

- Provincial government
- District municipalities (e.g. Bohlabela District Municipality)
- Local municipalities (e.g. Bushbuckridge Local Municipality)

However, the process is a complex one and different solutions will be required for different areas. The diagram below sketches out broad responsibilities for various aspects of accessing water. A number of different options are possible at stage 5.

## 1. A national custodian of water...



### DWAf - National, and the Minister of Water Affairs and Forestry

- Public trustee of South Africa's water resources
- Monitoring guidance and regulation
- Provides assistance with capital infrastructure funding

## 2. Protection, allocation and licensing...

### Catchment Management Agency (CMA)

- Manages and protects all water resources at catchment level
- CMA's are appointed by the minister
- CMA must produce a Catchment Management Strategy (CMS)



## 3. Management of access...

### Water Services Authority (WSA)

- Provides water to consumers
- Bohlabela District Municipality will be the WSA.

## 5. Local provision, management and maintenance

### Water Services Provider (WSP)

- responsible for physical provision of water to consumers

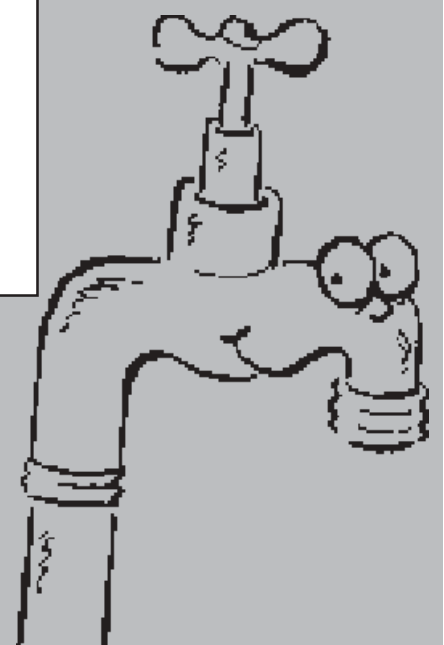
There are a number of different institutions that can fulfil the role of a Water Services Provider. These include:

- a Water Board
- a Regional Council
- a Local Municipality
- a private water works company
- a Water Services Committee

## 4. Large scale provision

### Bulk Water Service Provider

- develops, operates and maintains bulk water supply infrastructure
- Bushbuckridge Water Board (BWB) is the bulk water service provider



# Catchment Management Agencies

*Catchment Management Agencies are important new institutions for water resource management. A Catchment Management Agency or CMA will be formed for each of South Africa's 19 Water Management Areas. In addition to managing water resources at a catchment level, CMA's also form the core of the new participatory and integrated approach to water resource management.*

## What is a Catchment Management Agency?

Catchment Management Agencies (CMA's) are an important reflection of our new policies on water resource management. The aim of establishing these CMA's - one for each of South Africa's 19 Water Management Areas - is to delegate management of water resources to more regionalised and local levels, to involve stakeholders in resource management, and to give effect to integrated water resource management.

## What will Catchment Management Agencies do?

Eventually, CMA's will pick up most of the responsibility for overseeing provincial and local water resources management. However, to begin with, their three most important functions will be to:

1. play a co-ordinating role regarding water-related activities and water management institutions
2. develop and implement a Catchment Management strategy (CMS)
3. encourage public participation.

Once established, a CMA will be expected to:

- manage and monitor permitted water use within its water management area
- conserve and protect the water resources and resource quality within its water management area
- do anything necessary to implement catchment management strategies within its water management area.



- Whilst the ultimate aim is to establish catchment management agencies for all water management areas, the **Minister acts as the catchment management agency where one has not been established.**
- A CMA for the Inkomati Water Management Area, into which the Sand River catchment falls, does not yet exist which means that the Minister is the CMA until such time that a local CMA is established.
- Where the necessary capacity does not exist to establish a catchment management agency, an **advisory committee** may be appointed to develop the necessary capacity as a first step towards establishing an agency.
- Catchment management agencies may be established for specific geographic areas, after public consultation, on the initiative of the community and the stakeholders concerned. In the absence of such a proposal the Minister may establish a catchment management agency on the Minister's own initiative.
- The board of a catchment management agency will be constituted in such a way that interests of the various stakeholders are represented or reflected in a balanced manner, and the necessary expertise to operate effectively is provided.
- Members of the governing board can be elected or nominated by the different water user groups for appointment by the Minister, and the Minister may of his or her own accord appoint further members. The Minister may also remove board members.

## Catchment Management Strategies



The **main tool** proposed to facilitate management at regional or catchment level is the use of a **catchment management strategy**, which is drafted within a nationally determined framework either by the catchment management agency or in consultation with all role players where a catchment management agency does not exist.

The catchment management strategy will contain details of:

- water allocations
- the requirements of the environment and international obligations
- the main issues affecting water quality and quantity which require intervention
- management goals for addressing the critical issues
- potential management strategies and responsibilities for action to achieve these objectives
- enable the public to participate in water management issues
- financial arrangements.

These strategies will need to form the basis of a **national water management strategy** approved by the Department of Water Affairs and Forestry.

Organisations such as Water Users' Associations (including former Irrigation Boards) will interact with the catchment management agency as stakeholders within the catchment.



# Water Service Institutions

*Two important categories of water service institutions are Water Services Authorities and Water Service Providers. They will ultimately be responsible for ensuring that all people in the Sand River Catchment have access to the water they are entitled to or licensed to use. In most areas, and ours, the role of the Water Service Authority will be filled by district-level local government.*

## Water Services Authorities

The Water Services Act gives the Water Services Authority the responsibility to:

- Prepare a water services development plan outlining how water services will be provided
- Involve communities in drawing up the plan and report on how it is being implemented
- Carry out the functions of a water services provider itself or enter into a contract or joint venture with one or more water services providers
- Create and pass by-laws which regulate conditions for water services provision, and set tariff structures.
- Channel funds to water services providers, Implementing Agents and other relevant institutions
- Monitor and facilitate service provision
- Settle disputes

According to the Act, water services can only be obtained through a water services authority and its contracted Water Services Providers.

The duty of the water services authority is to ensure efficient, affordable, economical and sustainable water services within a specific area. This is subject to:

- The availability of water resources
- The need for an equitable allocation of resources
- The duty of consumers to pay reasonable tariffs
- The duty to conserve water resources
- The nature, topography, zoning and situation of the land in question.

The WSA is also responsible for the collection and treatment of sewage, waste water and effluent. It may perform this function itself or it may contract a water services provider to do it. Municipal sewage and waste water treatment infrastructure comprises the sewage pipes

and treatment plants used to collect sewage, waste water and other effluent and to treat it before returning into the river.

In relation to sanitation, typical responsibilities of a WSA include:

- Promoting and facilitating the construction of at least basic sanitation facilities or advise households on how to do it themselves
- Promoting public understanding of the close linkages between health, hygiene and sanitation
- Ensuring that on-site latrines are desludged as necessary
- Management and maintenance of sewer systems
- Safe treatment and disposal of sludge, sewage and effluent
- Monitoring and evaluation of service provision.

There are many different options for water service providers...



## Water Services Development Plans

Every municipality (Water Services Authority) must, as part of the process of preparing any **integrated development plan**, prepare a draft water services development plan for its area of jurisdiction.

Every draft water services development plan must contain details of:

- The physical attributes of the area to which it applies
- The size and distribution of the population within that area
- A time frame for the plan, including the implementation programme for the following five years
- Existing water services
- Existing industrial water use within the area of jurisdiction of the relevant water services authority
- Existing industrial effluent disposed of within the area of jurisdiction of the relevant water services authority
- The number and location of persons in the area who are not being provided with a basic water supply and basic sanitation
- The future provision of water services and water for industrial use and the future disposal of industrial effluent.

## Water Service Providers

A **Water Services Provider** can be any institution that has the capacity to engage in the reticulation of water to end users. A number of institutions may function as Water Services Providers. These include:

- a Water Board
- a Regional Council
- a Local Municipality
- a private water works company
- a Water Services Committee

A Water Services Provider is responsible for physically providing water supply and sanitation services to consumers under contract with the Water Service Authority. The Water Services Authority can also be the Water Services provider or it can contract a community-based organisation, a Water Board, an NGO or an adjoining municipality. No Water Services Provider, even ordinary vendors, may operate without the permission of the Water Services Authority. Among other things, the Water Services Provider:

- Operates the water services supply system
- Handles consumer relations
- Issues bills and collects revenue for water services
- Enter into a contract with a Bulk water Services Provider, if necessary
- Contracts in support services if necessary



# Bohlabela District

*The Sand River Catchment falls within the Bohlabela Municipal District. Local government structures in our area are fairly new, so not everything is in place yet, but currently it is planned that access to water will be managed as described below.*

## The Bohlabela District Municipality

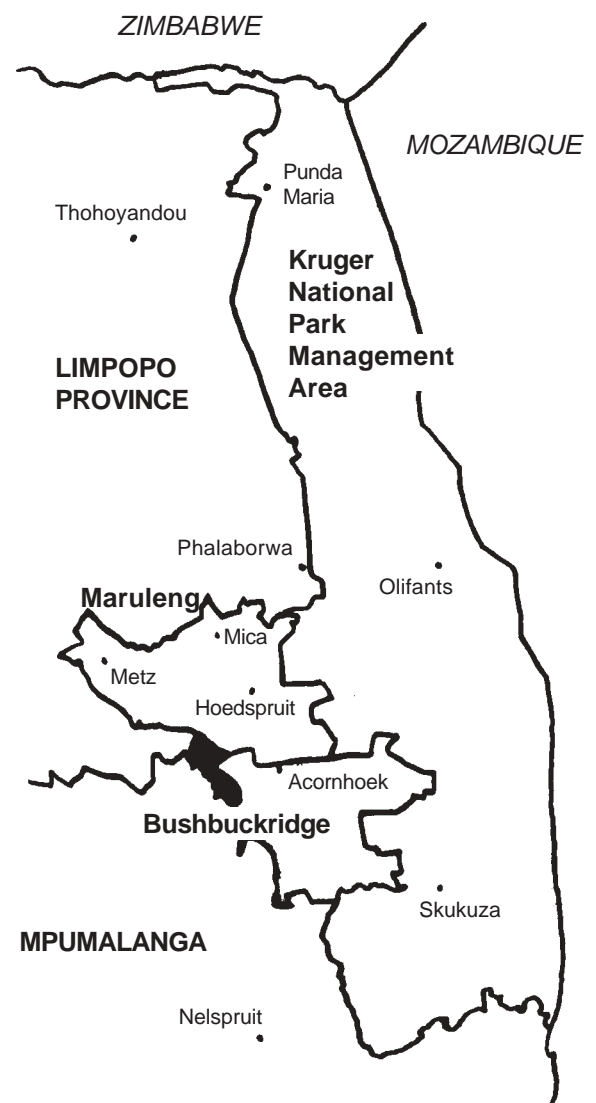
The Bohlabela District Council oversees the new Bohlabela District Municipality (BDM) comprising two local municipal areas and one management area. These are the Maruleng Local Municipality, the Bushbuckridge Local Municipality and the Kruger National Park Management Area. The BDM has offices in Thulamahashe while Maruleng offices are in Hoedspruit and Bushbuckridge Local Municipality has offices in Mkhuhlu. Kruger National Park has its own management structure overseen from Skukuza.

The BDM is the designated Water Services Authority (WSA) for the entire municipal district. This means that it is responsible for making important decisions regarding the provision and purification of water resources in the district. Its responsibilities include contracting in Water Service Providers and other crucial water services.

The BDM is still very young, and has yet to iron out all of the problems associated with establishing a new municipality. Establishing a new municipality takes time, and brings many challenges. Added to this are the number of serious problems that we have inherited from the old apartheid 'homeland' system. Our municipal district contains former 'white areas and towns (such as Hoedspruit) and the former homeland areas of Gazankulu and Lebowa which are characterised by poor services, high population densities and inadequate water provision.

The BDM does not yet have ownership or run any of the water service infrastructure in our district. This still falls under DWAF. This makes it difficult for decisions to be made. Communities have high expectations, and are putting pressure on the BDM and local municipalities to deliver.

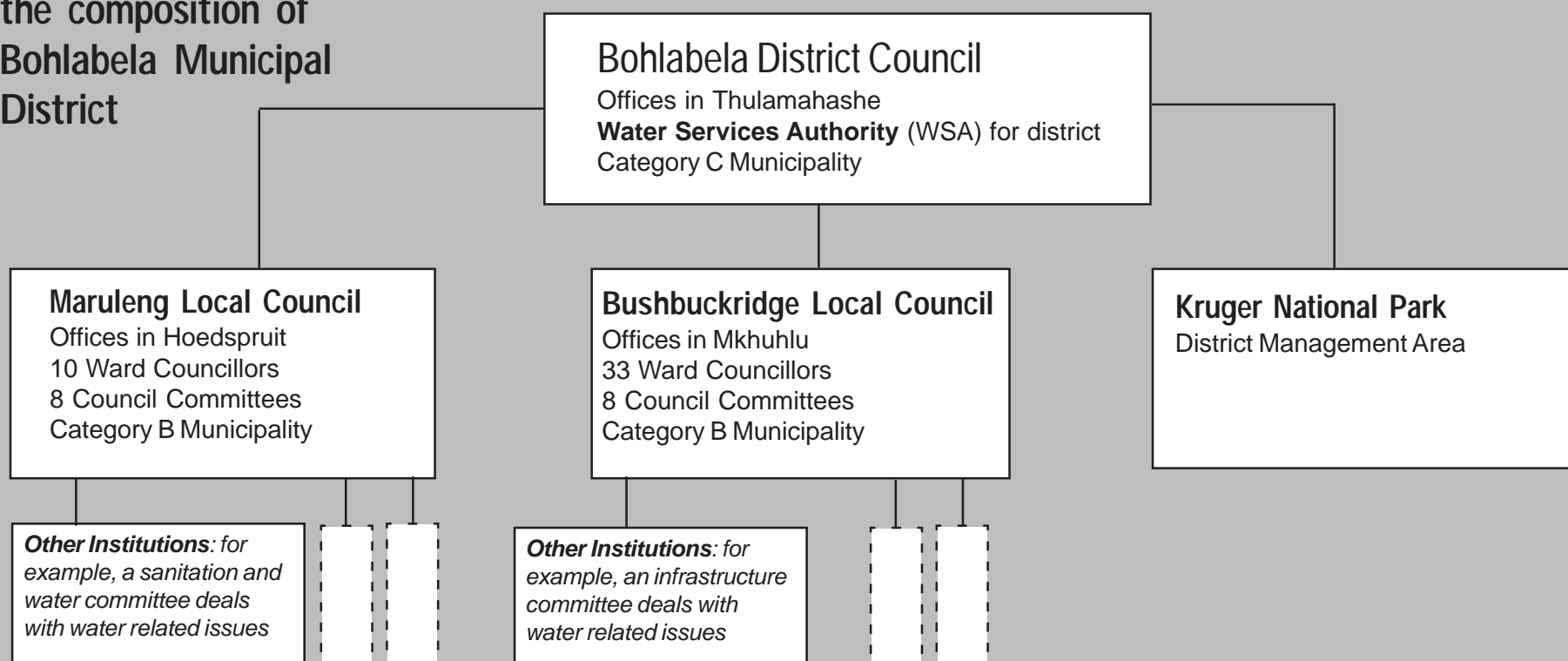
There is one established institution within our municipal district. The Bushbuckridge Water Board has the infrastructure, management systems and appropriate personnel to provide advice, skills and training. There are also local NGO's like the Association for Water and Rural Development (AWARD) that help the BDM with water services policy, bylaws and water delivery in a rural context.



Situations vary between the 3 components of our municipal district:

- Kruger National Park operates independently
- The Maruleng Local Municipality has inherited a fairly organised infrastructure from the past dispensation
- Bushbuckridge local Municipality is faced with tremendous challenges. No systems for billing or collecting revenue from its water consumers have been established yet. By-laws are still being developed and it will be some time before their implementation shows effect.

An organogram showing the composition of Bohlabela Municipal District



# Public participation

*Participation in water management, at all levels, is not only a constitutional requirement, but also necessary if we are to achieve our goals. Many routes for participation have been established in our new management framework. The Catchment Management Agency is at the heart of processes enhancing access to and management of our water resources.*

## Water User Associations (WUAs)



Water User Associations are co-operative associations of individual water users who wish to undertake water related activities for their mutual benefit. They can range from village Water Committees to groups of farmers to transformed irrigation boards. They may be involved at implementing the CMS at a local level.

## Advisory Committee



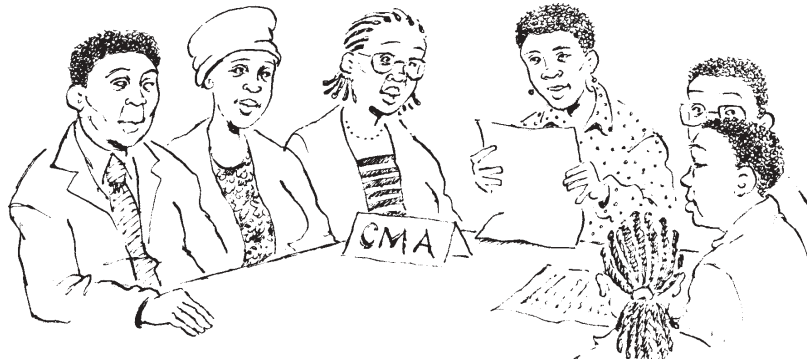
An Advisory Committee will provide the Minister with advice and recommendations as regards management of water resources

## The Minister and Ministry of Water Affairs



At a national level, the minister and ministry serve as custodians for all of South Africa's water resources. We may use them, but cannot own them. Policy and legislation are generated at national level.

## Catchment Management Agencies (CMAs)



CMAs are statutory bodies, established by and accountable to the Minister of Water Affairs. They will be governed by a board that is constituted in such a way that the interests of the various stakeholders are represented in a balanced manner. Members of the governing board will be elected or nominated by different water user groups, and appointed by the minister. Catchment Management Agencies will report to national level and will influence future legislation and policy.

*Village or ward level water management institutions such as water committees can feed into and inform work done at a sub-catchment level in Catchment Management Fora*

## Catchment Management Fora (CMFs)

Catchment Management Fora will inform and support the Catchment Management Agency for your water region. Catchment Management Fora are public institutions that may be established at a sub-catchment level.



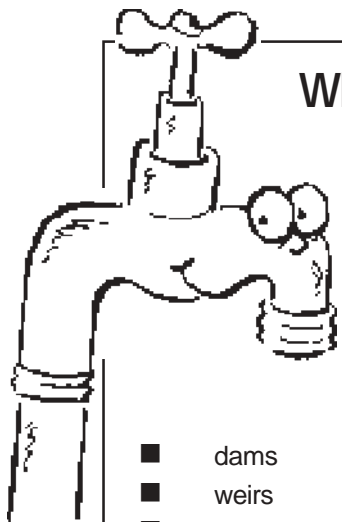
## Catchment Management Committees (CMCs)



Catchment Management Committees will be composed of interested people with technical or other expertise and will serve an advisory function for CMAs. A CMA may also choose to delegate certain of its powers to a CMC. CMCs provide a means by which a CMA can broaden its technical and management capacity and involve a broader range of stakeholders in water resource management.

# Infrastructure

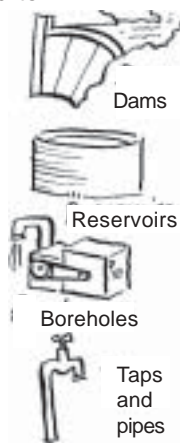
*In Unit 7 we looked at the need to ensure we have sufficient stock or available water in our catchment area to meet our needs. Having sufficient stock is necessary if we are to make water accessible to all, but does not guarantee it. Sufficient and efficient infrastructure is needed to ensure equitable access for all.*



## What is 'infrastructure'?

Any physical installation aimed at storing, treating, moving or delivering water can be considered water infrastructure. Our water infrastructure thus includes, but is not limited to:

- dams
- weirs
- pipelines
- canals
- taps
- boreholes
- storage tanks
- treatment plants
- standpipes
- bulk supply schemes

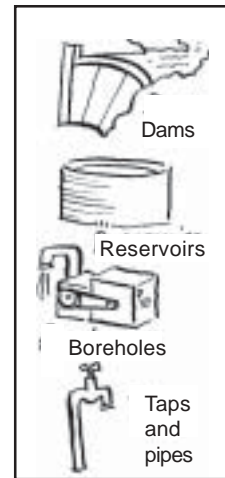


## To access water we need...



Enough **stock** to meet our needs...

the quantity and quality of water available are important



Adequate and efficient **infrastructure** to deliver water to consumers...

we will need to improve, maintain and repair our infrastructure



Will enable us to meet our **water obligations**

the quantity and quality of water supplied are important

## The physical process of collecting and providing water

Providing water to people and industries in a catchment area is done through a physical processes of collection and distribution. A number of steps are part of these processes.

- Rainfall is the basic source of water for a catchment. Most of the water that we use to supply residential areas and industries comes from rain collected in rivers. Many people living in rural areas depend on rainwater that has entered the ground (called groundwater). A pump is used to bring the water to the surface.
- Rainwater runs into rivers which people sometimes block to form dams. The stored water (bulk water) is then abstracted and treated before it is supplied for human consumption.
- In some instances water is abstracted directly from rivers and then treated.
- The treated water is stored in reservoirs prior to delivery to the Water Services Providers and/or end users.
- Alternatively, water may be abstracted from the ground by means of boreholes and then stored in tanks before it is piped to taps in communities.

## Infrastructure in our catchment area

The Sand River Catchment will have to deal with the legacy of its history as part of a former homeland before it can claim to have adequate infrastructure. While there are many pipes and taps and boreholes in our area, most of them function very inefficiently, if at all. Corrupt homeland practices have also led to a bewildering number of separate schemes being built by contractors. The fact that they are not linked to each other makes provision of water costly and difficult. We are certainly not yet meeting our target of equity, efficiency and sustainability.

## Some water supply scenarios

Adequate Stock	Adequate and efficient infrastructure	Water obligations are fulfilled
 There is <b>enough water in the catchment</b> (stock) to meet needs. It is of an acceptable quality. <input checked="" type="checkbox"/>	 There is <b>adequate infrastructure to store, transport and deliver water</b> . It is well maintained and in good repair. <input checked="" type="checkbox"/>	 <b>Water needs are met</b> and obligations fulfilled! 😊
 There is <b>enough water in the catchment</b> (stock) to meet needs. It is of an acceptable quality. <input checked="" type="checkbox"/>	 There is <b>not enough infrastructure, or infrastructure is in a poor condition and badly maintained</b> . <input checked="" type="checkbox"/>	<b>Water needs cannot be met</b> . People cannot access the water they are entitled to. 😞
 There is <b>not enough water in the catchment</b> (stock) to meet needs. <input checked="" type="checkbox"/>	 There is <b>adequate infrastructure to store, transport and deliver water</b> . It is well maintained and in good repair. <input checked="" type="checkbox"/>	<b>Water needs cannot be met</b> . People cannot access the water they are entitled to. 😞
 There is <b>not enough water in the catchment</b> (stock) to meet needs. <input checked="" type="checkbox"/>	 There is <b>not enough infrastructure, or infrastructure is in a poor condition and badly maintained</b> . <input checked="" type="checkbox"/>	<b>Water needs cannot be met</b> . People cannot access the water they are entitled to. 😞

In this unit we look at some of these new ways of working with water, and at some of our rights and responsibilities as regards access to water. We will look at our enabling water legislation, some of the institutions that are being set up for managing access to water and ensuring public participation in water management; and examine just a few of the many issues around infrastructure.

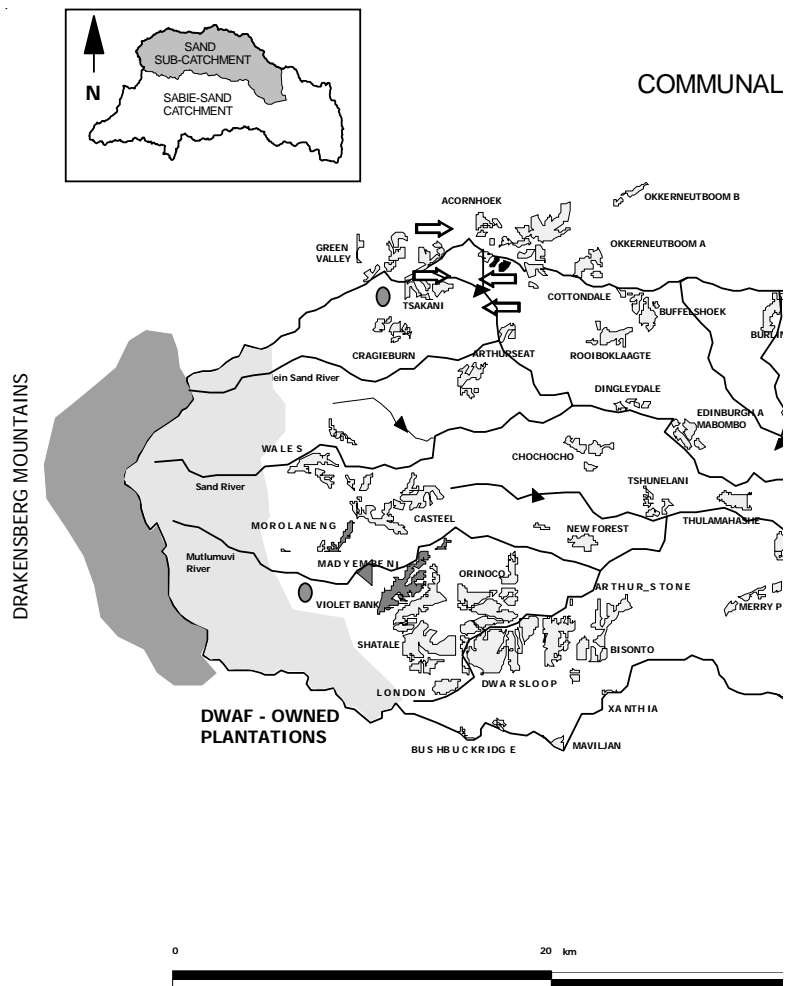
# Issues of access...

Water in the Sand River Catchment - legislation, rights, governance and infrastructure

Professional Portfolio Unit 8

Saving the Sand Series

## The Sand River Catchment



Save the Sand Project 2003

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an integrated catchment management project

# Save the Sand

## The Save the Sand Project

The Save the Sand Project is a national pilot project exploring ways of implementing Integrated Catchment Management and Landcare principles within the catchment area of the Sand River. As a national pilot project, it has a responsibility to develop a vision, be innovative in its approaches, and provide documented lessons that can be shared. Its main goal is to address the rehabilitation and sustainability of the Sand River and its catchment in an integrated and comprehensive way.

### Key principles of the Save the Sand Project

- Rehabilitation and sustainability
- Social upliftment and equity
- Economic growth
- Co-operative governance

These units are part of the Save the Sand Project's work towards building public awareness, capacity and action around water and land management in the Sand River Catchment.

## Acknowledgements

This series of units is based on:

**Save the Sand Phase 1: Feasibility study: the development of a proposal for a catchment plan for the Sand River Catchment**

By: S.R. Pollard, et al. AWARD. Second Edition - April 1999

It also draws on work carried out by the Claude Harris Leon Foundation and Wits Rural Facility, as well as partners in the Save the Sand Project. Other documents it draws on include:

- Save the Sand Project Discussion Paper: *A brief introduction to the legal framework for water rights in South Africa*, by Ramin Pejan; AWARD, 2003
- WHIRL Project Working Paper: *Stock, infrastructure, demand and entitlement (SIDE) - developing a methodology for improved decision making in water resource allocation and development*, by P. Moriarty, et al; 2003, in press.

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## Water Households and Rural Livelihoods Project (WHIRL)

WHIRL is a collaborative research project supporting innovative approaches in South Africa and India to address water resources issues in rural water supply. In South Africa, there are two main research themes: 1) Productive uses of water and livelihoods; 2) The reserve, licensing and human needs.

The WHIRL team produces papers, guidelines, training and advocacy materials. All outputs are available at the website: [www.nri.org/whirl](http://www.nri.org/whirl)

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2003

## Working with issues of water supply...

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