

Ecological Reserve – Keeping SA's Lifeblood Pumping



Courtesy of SA Tourism

South African water law dictates that we reserve water for future generations and to keep our aquatic ecosystems alive.

It is well known that without water we cannot survive. Our bodies are up to 60% water, and each day we must drink water to replenish our systems and stay healthy.

Just like the human body needs water to survive and function, so rivers and other water resources (wetland, estuaries and underground water) need to retain a certain amount of water.

People need water for all sorts of things, not only for drinking, but also for washing, cooking, and growing food. We also need water to power our industries, and create electricity and mine precious metals and

minerals. But in the process of using water, people can damage rivers, wetlands, lakes and other watery places. Damaged ecosystems do not work very well and may fail us when we need them most.

Because South Africa is a semi-arid country (the country is among the 30 driest countries in the world), we have to take care of the little water we have. The South African Bill of Rights states that everyone has the right to sufficient food and water and to an environment that is not harmful to their health or well-being. One way of protecting water is through the creation of special laws.

NATIONAL WATER ACT

The National Water Act, which was promulgated in 1998, emphasises that all aspects of water on earth are connected, and that we have to manage water resources within that connected cycle. (Can you still remember how the water cycle works? Water falls from the sky as rain, runs off the landscape, filters into the soil, flows to the sea in rivers, is stored in dams, evaporates into the sky and rains back onto the earth.)

The Act recognises that water belongs to the whole nation and is administered by the government for the good of the people. This legislation protects the rights of all people to have water for their basic needs, but also takes into account the needs of aquatic (watery) ecosystems.

How does it do this? By ensuring that a little bit of all water resources are reserved for future generations. South Africa is the first country in the world to legislate this concept and provide this Reserve as right of law.

RESOURCES

Watermark – The Lasting Impression of the Ecological Reserve (WRC Report No TT307/07)
Some for All, Forever – Water Ecosystems and People (WRC Report No TT 176/02)
These booklets are available from the Water Research Commission at no charge. To order, contact Publications at Tel: (012) 330-0340 or E-mail: orders@wrc.org.za and quote the WRC Report number.

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Rivers do not only provide water, but also 'products' such as fish, medicinal plants and reeds used for basket weaving.



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THE RESERVE

The Reserve consists of two parts – the Basic Human Needs Reserve and the Ecological Reserve:

◆ The **Basic Human Needs**

Reserve is the water allocated for human consumption before any other water can be assigned. It provides for the essential needs of individuals and includes water for drinking, food preparation and personal hygiene. The Reserves ensure that people are never overlooked in favour of ecosystems or industrial use. At present, this amount is calculated as a minimum of 25 litres per person per day.

◆ The **Ecological Reserve** relates to the water required to protect and sustain the aquatic ecosystems in order to secure ecologically sustainable development and water use.

In this way, the National Water Act protects the rights of water ecosystems because they provide people with many free services necessary to life – water supply, waste processing and dilution, natural products (reeds, fish, and medicinal plants), nature conservation, flood control, recreation and places for beauty and religious rituals.

This does not mean we are not allowed to use the resources. We must use water and water ecosystems for social and economic development. We must use water and water ecosystems for poverty alleviation. But we need to leave enough water in an ecosystem so that the ecosystem remains alive.

Rivers clean themselves naturally. They provide habitats for a wide range of plants, animals and microbes. When a river is used by many people, the number and kind of plants, animals and habitats change. Feeding processes change. The structure and function of the river change. The health of the river suffers.

The Reserve provides that all rivers, regardless of their health, need:

◆ Enough water to maintain their structure and to provide habitats for plants and animals;

THE SOUTH AFRICAN BILL OF RIGHTS (Chapter 2 of the Constitution) STATES THAT:

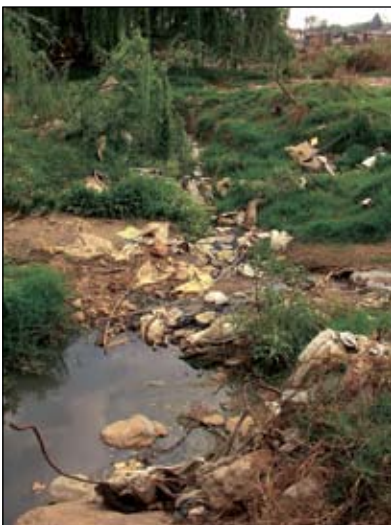
"Everyone has the right to an environment that is not harmful to their health or well-being; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that:

- ◆ prevent pollution and ecological degradation;
- ◆ promote conservation; and
- ◆ secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development."

- ◆ Water in the right season so that plants and animals can complete their life cycles;
- ◆ Variability of flow so that the groups of animals that thrive in either wetter or drier conditions can be maintained;
- ◆ Enough water in severe droughts so that rivers that usually flow all year continue to do so, and seasonal rivers do not dry up for longer than they would naturally.

We all need to work together to ensure we have the water ecosystems we want. 🌊

Kathy Eales



We all have a responsibility to ensure that our water ecosystems are protected from pollution and overuse.