

## **DIRECTORATE: WATER QUALITY MANAGEMENT**

**Mission:** The Directorate Water Quality Management mission is to ensure the integrated sustainable management of the water quality of water resources in South Africa.

### **Main objectives are:**

- ◆ Plan and develop point-source, diffuse source, remediation and resource directed integrated water quality management policies, strategies, procedures, guidelines, methodologies, regulations and criteria;
- ◆ Build capacity;
- ◆ Provide specialist technical and strategic support;
- ◆ Consider authorizations;
- ◆ Monitor, and audit the implementation of the said policy;
- ◆ Manage WQM related information;
- ◆ Promote transparent decision taking through Co-operative Governance and participative management;
- ◆ Ensure the integrated sustainable management of the water quality of the water resources of South Africa through the application of Source Directed Controls (SDCs) and Resource Directed Measures (RDM); and
- ◆ Ensure fitness for use of South Africa's surface water, groundwater and estuarine waters for all users sectors, which include: Agriculture; Domestic; Industry; Recreation; as well as Aquatic ecosystems

### **Mandates:**

Water quality management in South Africa is increasingly faced with an expanding mandate regarding the protection and management of its limited water resources. Contributing factors to this are increasing pollution of water resources and over-exploitation due to the growth of the population, the evolution of the South African society and the imperatives for equity of access to water.

Water quality management in South Africa has evolved from an "*pollution control*" approach, which essentially concentrated on source directed management measures, to a "*Receiving Water Quality Objectives*" approach, which recognises the receiving water users' as well as the aquatic ecosystem's water quality requirements, to the current approach where water quality management consists of an integrated source, remediation and resource directed management approach; the latter for the first time being actualised by provisions contained in South Africa's National Water Act, 1998 (Act No.36 of 1998)(NWA).

Source directed measures include the demonstration by potential polluters that waste minimisation, re-use and recycling before disposal have duly been considered and employed. The aim therefore is towards cleaner technology, not only to improve methods of disposal of waste.

The NWA further, introduces the concept of Resource Quality and Resource Quality Objectives, which necessitates that water quality management, now, also take responsibility for the management of the in-stream and riparian habitat, and aquatic biota quality. The principle of sustainability is firmly entrenched in the NWA and in water quality management it means that the protection of the aquatic ecosystem and the basic human needs requirement (Reserve) must be balanced with the development of the water resource and water use.

The Directorate continued the execution of its mandate by proceeding with the issuing of disposal site permits i.t.o. Section 20(1) of the Environmental Conservation Act. To date 363 permits (approximately 61% of the "registered" total of 719 sites) have been issued (31 during the reporting year).

The Department also in co-partnership and in the spirit of co-governance with the Department of Environmental Affairs and Tourism contributed to the completion of the Integrated Pollution Control and Waste Management Policy and the National Waste Management Strategy more specifically focusing on its water quality responsibilities within an integrated pollution control policy model.

### **List of functions:**

1. Plan, develop and/or revise WQM policies, strategies, procedures, guidelines and methodologies.
2. Effective guidelines for public participation in WQM.
3. WQM regulations.

4. Ensure registration of all water use related to WQM.
5. Development of strategy and criteria for delegation to regional directors for WQM.
6. Capacity building (internally and externally).
7. Promote input to the development of a plan to ensure cross functionality.
8. Specialist technical support.
9. Inter-departmental specialist input and co-governance.
10. Intra-departmental specialist input.
11. Stakeholder liaisoning.
12. Assessment of authorizations (operational).
13. Remediation.
14. Information system management.
15. Develop a performance audit system for the implementation of WQM related policy and enforcement of WQM related authorizations and sectoral source control.
16. Ministerial investigations.
17. Administration support function.
18. Project management.

**Key challenges for 2000/2001:**

As part of the implementation of the new National Water Act the Directorate Water Quality Management has embarked on developing new water quality policies and various implementing regulatory instruments. Examples of these include:

- Developing the methodology for setting water quality objectives for water resources using the South African Water Quality Guidelines (these includes the marine environment and aquatic ecosystems) and the Reserve;
- Developing the methodology for WRM to relate source directed measures to RQO or RWQO;
- Developing guidelines for catchment assessment studies and for the establishment of WRM forums;
- the Department's Water Quality Management policy document titled "Water Quality Management policies and strategies in the RSA", is currently being rewritten to make provision for the Department's new water quality mandate as reflected in the NWA;
- The development of a Pricing Strategy to provide a framework and detailed proposals to implement the charge system for water use. Apart from charging the taking of water from a water resource for usage, waste discharge charges could be levied for discharge of waste to and impacts on water resources, through financial and economic instruments;
- The development of a WQM performance assessment system.
- Various Industrial, Mining and Municipal rehabilitation, remediation and historical unacceptable situations receives attention.

**Achievements:**

- the regulations on use of water for mining and related activities aimed at the protection of the water resources were published in Government Notice No 704 on 4 June 1999(Government Gazette No 20119);
- The continuous development and implementation of water pollution prevention measures at abandoned coal mines in the Witbank (Mpumalanga) and northern KwaZulu Natal areas;
- The development of Best Practice Guidelines on pollution prevention and water management strategies in the mining sector and waste discharge standards in draft regulation.
- The completion for publication of the first edition of a Policy and Strategy the Management of Groundwater Quality in South Africa representing a strategy which is practical and integrates the management of surface and groundwater in South Africa. Groundwater has with the new National Water Act also been brought into the public trust domain;
- the initiation and completion of phase 1 of a Strategy for Managing the Water Quality Effects of Settlements; and
- The completion and the distribution of the second edition of the Minimum requirements for Waste Disposal by Landfilling, for Hazardous Waste Handling and Disposal and for the Monitoring of Waste Management Facilities. All spheres of government, consultants, training institutions and industry extensively use the documents.

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