

EKURHULENI METROPOLITAN MUNICIPALITY

FIRST YEAR STATE OF THE ENVIRONMENT REPORT 2003



Ekurhuleni
METROPOLITAN MUNICIPALITY

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Compiled for:

Department: Environment and Tourism

Ekurhuleni Metropolitan Municipality

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Foreword by the Mayor

In 2002, the world converged in South Africa to attend one of the United Nations biggest events – the World Summit on Sustainable Development (WSSD). This important summit took place on the eve of a decade of freedom in South Africa, and highlighted key aspects around sustainable development and environmental management.



The WSSD spelt out clear challenges and solutions to Ekurhuleni, and indeed the whole world. This historic gathering laid the basis for a clear plan, which seeks to deal with environmental management as we celebrate 10 years of freedom. This year we will be celebrating advances we have made regarding our environmental challenges in Ekurhuleni. The WSSD, you would agree, has taken our efforts to deal with environmental management to unprecedented levels in South Africa. Significant at the conference was that the challenges we not only facing the continent, but the whole world.

Ekurhuleni, the industrial hub of SA, faces major challenges in ensuring a more equitable distribution of economic benefits, while managing the environmental impacts associated with its industrial, mining and related activities. Many of us live in close proximity to industrial nodes, and so our quality and enjoyment of life is negatively affected through the exposure to health and safety risks, increased competition for employment and limited access to open space recreational facilities.

Ekurhuleni, with its history based largely on mining, boasts a rich natural and cultural heritage, which serves as potential for tourism development. Most notably is the network of wetlands and pans, and open spaces, which function to house a large diversity of fauna and flora and to conserve our precious water resources.

Our RAMSAR site is the flagship of our natural heritage and this heritage needs to be protected for our children's enjoyment and well-being.

A major force driving environmental change is the prevailing cultural values, norms and practices that currently lead to the over-consumption of finite resources. Sound environmental management requires an understanding and awareness of the detrimental effects of unsustainable patterns of consumption and production, as well as a growing interest in the preservation of natural and cultural heritage.

With this in mind, this First Year State of the Environment Report has been compiled with the purpose of providing information on the condition of the social, economic and natural environment to both decision makers and the public, in order for them to understand and manage environmental problems. The provision of this information is intended to set the basis for the development of policy and strategies. It is also intended to allow the monitoring of progress and performance of implemented policy and programmes, and to raise public awareness of environmental issues.

It is my privilege therefore as Executive Mayor to present this First Year State of the Environment Report and I am confident that it will be an invaluable resource for all who use it.

A handwritten signature in dark ink, appearing to read 'Duma Moses Nkosi', written in a cursive style.

DUMA MOSES NKOSI
Executive Mayor
Ekurhuleni Metropolitan Municipality

Acknowledgements

This project could not have been possible without the input of many individuals and organisations, specifically those who provided information and data, and also those who provided comments on the draft document.

We would like to acknowledge both the Department of Environmental Affairs and Tourism and NORAD for providing financial assistance for this project, the Department of Water Affairs and Forestry (DWAF) and the Klipriver and Blesbokspruit monitoring forums for the provision of water monitoring data, the various sub-directorates within the Gauteng Department of Agriculture, Conservation, Environment and Land Affairs (GDACEL) for their co-operation in providing data and comment, and Statistics South Africa who made an extra effort to release Census statistics for the area. Furthermore, the inputs and co-operation of various departments within the Ekurhuleni Metropolitan Municipality were gratefully received.

Glossary of Terms

Biome A biological sub-division that reflects the ecological and physiognomic character of the vegetation. Biomes are the largest geographical biotic communities that it is convenient to recognize. They broadly correspond with climatic regions and are recognized for all the major climatic regions of the world, eg. Grassland, Savanna, Temperate forest, Afro-montane, Succulent Karoo and Fynbos biomes.

Conservation: The act of maintaining all or part of a resource (whether renewable or non-renewable) in its present condition in order to provide for its continued or future use. Conservation includes sustainable use, protection, maintenance, rehabilitation, restoration and enhancement of the natural and cultural environment.

Cultural resources: A broad, generic term covering any physical, natural and spiritual properties and features adapted, used and created by humans in the past and present. Cultural resources are the result of continuing human cultural activity and embody a range of community values and meanings. These resources are non-renewable and finite. Cultural resources include traditional systems of cultural practice, belief or social interaction. They can be, but are not necessarily identified with defined locations.

Development: A process for improving human well-being through a reallocation of resources that involves some modification of the environment. It addresses basic needs, equity and the redistribution of wealth. Its focus is on the quality of life rather than the quantity of economic activity.

Ecotourism (approach): an enlightening, participatory travel experience to environments, both natural and cultural, that ensures the sustainable use, at an appropriate level, of environmental resources and, whilst producing viable economic opportunities for the tourism industry and host communities, makes the use of these resources through conservation beneficial to all tourism role players.

Environmental Audit: A systematic, documented, regular and objective evaluation to see how well an organisation or facility is operating in terms of its Environmental Management System (EMS), and is complying with statutory requirements and the organisation's environmental policy.

Environmental Impact Assessment (EIA): A detailed study of the environmental consequences of a proposed course of action. An environmental assessment or evaluation is a study of the environmental effects of a decision, project, undertaking or activity. It is most often used within an Integrated Environmental Management (IEM) planning process as a decision support tool to compare different options.

Environmental Management System (EMS): Documented procedures drawn up as described in a South African Bureau of Standards (SABS) code of practice to implement the requirements of ISO 14000. Operating, emergency, data collection and documentation procedures are set out, along with procedures for training, the transfer of information and all the elements of a complete management and quality control system.

Heritage resources: The various natural and cultural assets that collectively form the heritage. These assets are also known as cultural and natural resources. They include the following: Any place or object of cultural significance, including:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and palaeontological sites;
- (g) graves and burial grounds, including—
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;
 - (v) historical graves and cemeteries; and
- (vi) other human remains, which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including—
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
- (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

Heritage: Is the sum total of sites of geological, zoological, botanical and historical importance, national monuments, historic buildings and structures, works of art, literature and music, oral traditions and museum collections and their documentation which provides the basis for a shared culture and creativity in the arts.

Integrated Environmental Management (IEM): A code of practice ensuring that environmental considerations are fully integrated into the management of all activities in order to achieve a desirable balance between conservation and development.

Land cover is the observed (bio)physical cover on the earth's surface (Food and Agriculture Organization of the United Nations (FAO), 2000). When considering land cover in a very pure and strict sense it should be confined to describe vegetation and man-made features. Consequently, areas where the surface consists of bare rock or bare soil are describing *land* itself rather than *land cover*. Also, it is disputable whether water surfaces are real land cover. However, in practise, the scientific community usually describes those aspects under the term land cover.

Land degradation refers to the reduction or loss, in arid, semi-arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns such as:

- Soil erosion caused by wind and/or water;
- Deterioration of the physical, chemical and biological or economic properties of soil; and
- Long-term loss of natural vegetation.

Land quality is the ability of the land to perform its functions in a sustainable manner.

Land use is characterized by the arrangements, activities and inputs people undertake in a certain land cover type to produce, change or maintain it. Definition of land use in this way establishes a direct link between land cover and the actions of people in their environment (FAO, 2000).

Non-renewable resource: A resource that has a finite stock and either cannot be reproduced once it is used or lost, or cannot be reproduced within a time span relevant to present or future generations.

Policy: The activity preceding the publication of a goal. A policy statement is the making known the formal articulation, the declaration of intent, or the publication of a goal to be pursued. Policy is a desired course of action and interaction that is to serve as a guideline in the allocation of resources necessary to realise goals and objectives.

Renewable resource: A resource produced as part of the functioning of natural or managed systems at rates comparable with its rate of consumption. Such resources can provide a sustained yield.

Sustainability: The ability of an activity to continue indefinitely, at current and projected levels, without depleting social, financial, physical and other resources required to produce the expected benefits.

Sustainable development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

List of Acronyms

CBD	Central Business District
DEAT	Department of Environmental Affairs and Tourism
DFA	Development Facilitation Act 67 of 1995
DME	Department of Minerals and Energy
DWAF	Department of Water Affairs and Forestry
E&T	EMM Department: Environment and Tourism
ECA	Environment Conservation Act 73 of 1989
EGSC	Eastern Gauteng Services Council
EIA	Environmental Impact Assessment
EMM	Ekurhuleni Metropolitan Municipality
EMPR	Environmental Management Programme Report
EMS	Environmental Management System
GAPA	Gauteng Agricultural Potential Atlas
GDACEL	Gauteng Department of Agriculture, Conservation, Environment & Land Affairs
GDP	Gross Domestic Product
GGP	Gross Geographic Product
GIS	Geographic information system
GOSP	Gauteng Open Space Project
GNRA	Gauteng Natural Resources Audit
HIA	Heritage Impact Assessment
IDP	Integrated Development Plan
IEMF	Integrated Environmental Management Framework
IUCN	World Conservation Union
JIA	Johannesburg International Airport
LA21	Local Agenda 21
NEMA	National Environmental Management Act 107 of 1998
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organisation
NHRA	National Heritage Resources Act 25 of 1999
NLC	National Land Cover
NWA	National Water Act 36 of 1998
SA	South Africa
SABS	South African Bureau of Standards
SAHRA	South African Heritage Resources Agency
SARDB	South African Red Data Book
SDC	Service Delivery Centre
SDF	Spatial Development Framework
SDR	Service Delivery Region
SEA	Strategic Environmental Assessment
SoE	State of the Environment
SoER	State of the Environment Report
VOC	Volatile Organic Compounds
WfW	Working for Water Programme
WSSD	World Summit on Sustainable Development