

# Environmental Development Framework

## 15.1 INTRODUCTION

This section will summarise, discuss and exemplify the most important issues, objectives and strategies for the natural environment in Buffalo City. Some projects or approaches to issues will be highlighted and the environmental legislative requirements will be commented upon briefly.

## 15.2 WHAT GUIDES THE ENVIRONMENTAL DEVELOPMENT FRAMEWORK

South African Environmental Law is based on International Law, Common Law and Statutory Law. The latter consists of :

- ❑ the Constitution of South Africa
- ❑ the National Environmental Policy
- ❑ NEMA (the National Environmental Management Act)
- ❑ National legislation
- ❑ Provincial legislation
- ❑ by-laws

The most important baseline for environmental considerations is the South African Constitution (Act 108 of 1996), which guarantees all people the right to an environment that is not harmful to their health or well-being. This is further formulated in NEMA (section 28), which states that everyone has the right to an environment that is taken proper care of.

Furthermore, all spheres of government are committed to sustainable development to ensure the protection of the environment for present and future generations. The concept of sustainability, or a society that is in harmony with its environment, is emphasised in the national vision. This is further accentuated and formulated on a local basis through the formulation of the Local Agenda 21. It is also stated in NEMA (section 2) that we have the right to sustainable development – therefore all important environmental factors must be considered before development decisions are taken.

The environmental factors that must be taken into account include:

- not disturbing ecosystems and cultural assets
- not polluting or wasting resources
- being responsible and cautious when using resources where the effects are uncertain

It should also be stated that the environmental legislation applies to every South African citizen, as formulated in NEMA (sections 32 and 33), which states that everyone has the right to legal standing to enforce environmental laws.

### **15.3 CONSTRAINTS**

In the Government's Policy document on sustainable development it is spelled out a number of constraints that have also been identified in BCM as hindrances to sustainable environmental management.

The main constraints are:

- fragmented policies and areas of responsibility
- unco-ordinated planning
- limited capacity and resources
- conflicts of interest between environmental protection and exploitation for economic benefit
- poor enforcement of the regulatory framework or inefficient laws
- little public awareness and participation.

### **15.4 PRIORITY ENVIRONMENTAL ISSUES**

The IDP Analysis Phase in September 2001 pointed out a number of problems as being of the utmost urgency for the health and environmental situation. The current activities in Buffalo City seriously threaten the sustainable meeting of basic needs, such as availability of clean water and a safe environment, as well as the economic preconditions for the municipality to be attractive to investors, tourists etc.

The priority issues for environment can be summarised as follows:

**1. Unsustainable management and use of the environment by different stakeholders, such as:**

- illegal logging, which in turn leads to erosion and clogging and pollution of watercourses
- inadequate planting leading to extinction of some species or the taking over from invasive plants denudation of dunes
- illegal and unsustainable use of land

**2. Unsustainable use of coastal resources**

- over-exploitation of some aquatic or marine species
- extensive shipping operations and dumping and spill from ships etc.

**3. Negative environmental and health impact due to unsustainable solid waste management**

- illegal dumping of waste, leading to contamination of groundwater and spreading of diseases
- burning of waste, leading to smog and respiratory problems etc.

**4. High pollution levels in water, soil and air**

- inadequate management of urban sanitation aggravated by the poor state of sanitation in informal settlements
- marine water quality along coastline does not meet DWAF's national water quality standards
- emissions and discharges of pollutants from industries, vehicles etc. inadequately controlled
- Health and environmental risks associated with inadequate water quality directly associated with lack of equipment, staff making the monitoring and enforcement both fragmented and unreliable

For disaster management, the overall issue was the lack of an integrated approach to disaster management. It is also spelled out that improper disaster management would actually result in unacceptable human, economic and environmental losses.

For the increasingly pressing issue of interment, lack of suitable land and long-term planning are major components.

All these issues are pointing at unstable or unsustainable development, and time is of the essence if something significant is to be done to protect the environment before the current process of degradation has gone too far.

If development continues as it is, or even is allowed to increase its pace when Buffalo City becomes a metropolitan municipality, the environmental degradation will have reached an unacceptable level and will then seriously threaten not only the health of people but the economic development which in turn affects crime rates, social aspects etc.

One scenario with significant cross-cutting impact is the deterioration of the marine and river water quality due to continued inadequate sanitation and dumping of waste, sludge and effluents from e.g. landfill sites, sewerage treatment works and industries. Littering on beaches will continue, and in some spots waste will accumulate and make the beach unattractive for leisure. Even if the relevant department is aware of the risks, despite the current lack of e.g. laboratory equipment and qualified personnel, institutional or financial problems or other factors may allow this process to continue. If information on the health risks reaches the public, most potential tourists will choose another holiday destination and the potential source of income will be threatened, which in turn will lead to further unemployment at tourism-related establishments etc.

## 15.5 SHORT-TERM AND LONG-TERM OBJECTIVES

Following the identification of the key problems and risks, a number of important objectives for future development were formulated. The vision or overall objective is formulated as "a safe, healthy and sustainable environment within Buffalo City".

Specific objectives are, for instance:

- ❑ Minimised loss of biological diversity
  - ❑ Sustainable use of coastal resources, with special attention to sensitive, vulnerable, highly dynamic or stressed ecosystems
  - ❑ Comprehensive integrated long-term waste planning, including
    - efficient, effective and appropriate waste collection and treatment services in the entire municipality
    - landfills and transfer stations that comply with legislation and meet the long-term needs of the municipality
    - decreased landfill waste by 35% in volume within 5 years through alternative waste treatment and recycling
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- ❑ Improved air and water quality and land pollution management
  - ❑ A comprehensive and acceptable water quality monitoring programme

- ❑ Proactive and reactive integrated disaster management to reduce or eliminate the consequences of disaster
- ❑ To obtain suitable land for proper interment and to have sustainable institutional capacity

## **15.6 STRATEGIES, PROGRAMMES AND PROJECTS**

During the Programming Phase in the IDP process, and following the above discussion on the lack of long-term planning and sustainability, not surprisingly all Sub-Task Teams highlighted the need for the formulation of sector plans, policies and strategies within the next budget year. However, they also emphasised the need for increased co-ordination, co-operation and partnership within environmental planning. These needs can be addressed through an Integrated Environmental Management (IEM) approach that would give guidelines and tools to develop the sector plans in a structured way. This approach would ideally ensure that environmental considerations are efficiently and adequately taken into account at all stages of the development process.

The IEM approach is concerned with all aspects and stages of environmental resource allocation, from conceptualisation, planning and assessment of possible effects to the taking and implementing of decisions and monitoring of results.

Therefore the most environmentally important project to be in line with the legal requirements would be the formulation of an Integrated Environmental Management Plan (IEMP) that should set out or be a holistic approach to environmental issues, knitting together various facets of community ideals and needs and planning together. It should also incorporate broadly accepted environmental principles into one package.

Within the IEMP there would be sector plans that could also be individual planning documents for direct use by sectoral specialists, or guidelines to the relevant department.

The suggested environmental sector plans in the IDP are the following:

- ❑ Coastal Management Plan
- ❑ Integrated Waste Management Plan
- ❑ Land and Water Quality Monitoring Programme

- Air Quality Monitoring Programme
- Disaster Management Plan
- Integrated Interment Management Plan

All of these plans are also legal requirements and should be developed soon in Buffalo City to ensure proper planning.

Within all sectors of the Environment, a number of projects and programmes have focused on the following:

- Integrated planning for short-term and long-term needs
- Improved management of information – e.g. in an environmental database and the use of GIS
- Institutional needs
- Capacity-building
- Awareness and education
- Partnership
- Review of regulatory framework and means of enforcement

These fundamental elements are necessary tools for sustainable planning and implementation, and will also be addressed in both the sector plans and the overall EMP.

In short, all concerned Departments highlight the need for more adequate information, particularly from the rural areas, to be able to assess the needs and plan properly. This entails particularly the need for efficient sampling and information management at the Laboratory, which shoulders a great responsibility as an alarm-mechanism in the short-term, as well as the necessary indicator for environmental hazards. The publishing of a state of an environment report which is a legal obligation will serve as an eye opener to the public as would be a risk assessment study on pollution and disaster management. The publishing of this document will highlight pollution levels as part of public information sharing and capacity building.

Furthermore, institutional needs in terms of new staff or training of existing staff must be addressed to ensure efficient services. The need for training and education stretches from operational training of staff to environmental education of councillors. In the future organisation, a clear understanding of responsibilities but also possibilities of co-operation is necessary.

Several Sub-Task Teams have also expressed the need for new, tasked offices, i.e. an Atmospheric Pollution Control Unit, a Coastal Conservation Office and a Disaster Management Office.

Public awareness and a general understanding of responsibility for environmental protection among people are crucial factors for successful and sustainable environmental projects. This issue is closely linked to partnership with NGOs or industries, where community involvement and ownership play an important role. In this context, the Informal Recycler's Programme should be mentioned to serve several purposes - job creation, waste minimisation and recycling, capacity- building etc. Economic incentives and possible use of existing facilities at e.g. industries will have to be elaborated to support Buffalo City's efforts.

Finally, the need for harmonisation of by-laws with the Amatole District Municipality and review of other legislation has been identified, although the most crucial issue is the actual enforcement of environmental legislation. The need for a Municipal Court has also been expressed.

In terms of physical projects and needs, some are mentioned below:

- Additional fleet (for all Departments)
- the closure of illegal landfills that are heavily polluting the surroundings
- setting up transfer stations for more efficient use of vehicles and for recycling and composting.

The need for sanitation facilities for both rural and urban areas, ranging from provision of toilets for new housing to upgrading of sewerage treatment works in the urban areas, is very critical, but will not be discussed here. Several offices have also expressed the need for computers and computer training to enable officials to produce more efficient administrative work.

Another important aspect is that the recently formed Buffalo City has to take both urban and rural issues into account in planning, considering e.g. level of service and proximity to municipal facilities. For the municipality to be able to handle the rural areas will entail a challenge in terms of trying to leave the traditional tracks of municipal services, such as water-borne sewerage and waste collection by truck, and instead find appropriate and creative solutions.

One example of suitable solutions for rural areas is composting of biodegradable waste, which would reduce the waste volume by some 60% – 70% and consequently the need for waste trucks and landfill space. Transfer of skills and experience from Amatole District Municipality to Buffalo City will be important to plan and carry out services properly in the entire area.

Refer to map D9 – proposed Environmental Projects and Programmes  
Map D10 – Solid Waste Management Proposals

## **15.7 CONCLUSION**

To summarise the above discussion, it will be stated again that the most urgent task for Buffalo City in terms of environmental management is to ensure sustainability through integrated long-term planning. The backlog in terms of legislative requirements, such as formulating an Environmental Management Plan, has to be addressed. The challenge of satisfying the needs of the entire municipal area - rural, peri-urban and urban areas - is great and will require flexibility and innovative thinking in all Departments.

The environmental needs will still require a cross-sectoral approach through partnerships within the municipality as well as with other municipalities, industries and organisations. The concept of sustainability must be understood and must permeate all stages of development to safeguard the future of coming generations.