



**BERGRIVIER  
MUNICIPALITY**

**LOCAL BIODIVERSITY STRATEGIES AND  
ACTION PLAN**

**MAY 2011**

**BERGRIVIER MUNICIPALITY LOCAL BIODIVERSITY STRATEGIES AND ACTION PLAN  
(LBSAP)**

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**TABLE OF ACCRONYMS AND ABBREVIATIONS**

<b>BEMF</b>	Berg Estuary Management Forum
<b>BM</b>	Bergrivier Municipality
<b>Biodiversity Act</b>	National Environmental Management: Biodiversity Act 10 of 2004
<b>Biodiversity Sector Plan</b>	The Biodiversity Sector Plan for the Saldanha Bay, Bergrivier, Cederberg and Matzikama Municipalities (Maree, K.S. and Vromans, D.C. 2010)
<b>BONN Convention</b>	Convention on Migratory Species of Wild Animals
<b>CBA</b>	Critical Biodiversity Area
<b>CBD</b>	Convention on Biological Diversity
<b>CBO</b>	Community Based Organisation
<b>CITES</b>	Convention on International Trade in Endangered Species
<b>CMP</b>	Coastal Management Programme
<b>DEADP</b>	Department of Environmental Affairs and Development Planning (Western Cape)
<b>DEAT</b>	Department of Environmental Affairs and Tourism (National)
<b>DWAF</b>	Department of Water and Forestry (National)
<b>EIA</b>	Environmental Impact Assessment
<b>EIP</b>	Environmental Implementation Plan
<b>EPWP</b>	Expanded Public Works Programme
<b>ESA</b>	Ecological Support Areas
<b>FPA</b>	Fire Protection Association
<b>GCBC</b>	Greater Cederberg Biodiversity Corridor
<b>ICM</b>	Integrated Coastal Management Act (Act 24 of 2008)
<b>IDP</b>	Integrated Development Plan
<b>KPA</b>	Key Performance Area
<b>KPI</b>	Key Performance Indicator
<b>LAB</b>	Local Action for Biodiversity
<b>LBSAP</b>	Local Biodiversity Strategies and Action Plan
<b>LED</b>	Local Economic Development
<b>LUMS</b>	Land Use Management Scheme (Town Planning Schemes)
<b>LUPO</b>	Land Use Planning Ordinance (Ordinance 15 of 1985)
<b>MEC</b>	Member of the Executive Committee
<b>Minister</b>	Minister of Environmental Affairs and Tourism
<b>MRPDA</b>	Minerals and Petroleum Resources Development Act (Act 28 of 2001)
<b>NBF</b>	National Biodiversity Framework

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<b>NFAQM</b>	National Framework for Air Quality Management
<b>NSBA</b>	National Spatial Biodiversity Assessment
<b>NBSAP</b>	National Biodiversity Strategy and Action Plan
<b>NEMA</b>	National Environmental Management Act (Act 107 of 1998)
<b>NGO</b>	Non Government Organisation
<b>NWMS</b>	National Waste Management Strategy
<b>NWRS</b>	National Water Resource Strategy
<b>Protected Areas Act</b>	National Environmental Management: Protected Areas Act (Act 57 of 2003)
<b>RAMSAR</b>	Convention Wetlands of International Importance Especially as Waterfowl Habitat
<b>SDF</b>	Spatial Development Framework
<b>SPC</b>	Spatial Planning Categories
<b>TAS</b>	Local Government Turn Around Strategy
<b>IUCN</b>	International Union for Conservation of Nature
<b>WCDM</b>	West Coast District Municipality
<b>IEP</b>	Integrated Environmental Programme
<b>WC SDF</b>	Western Cape Spatial development Framework
<b>WSDP</b>	Water Services Development Plan

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## **EXECUTIVE SUMMARY**

### **INTRODUCTION**

Bergrivier Municipality (BM) is situated in the West Coast District of the Western Cape Province of South Africa. The municipal area covers a geographic area of 4407 square kilometres and has a population of 56 000 people. The municipal area comprises urban settlements, an extensive rural area and a coastal strip.

BM is a member of Local Action for Biodiversity (LAB) Programme, which is run by ICLEI – Local Governments for Sustainability’s Global Biodiversity Centre, in partnership with International Union for Conservation of Nature (IUCN). The key objective of the LAB programme is to support municipalities to integrate biodiversity into all aspects of their local governance. The LAB programme is a five step process that entails;

- Undertaking an assessment of local biodiversity and the way in which it is managed.
- Political commitment to biodiversity protection through signature of the Durban Commitment.
- Development of a Local Biodiversity Strategy and Action Plan (LBSAP) which is a 10 year plan detailing broad strategies and specific actions that the municipality will implement in a bid to conserve and enhance its biodiversity.
- Formal approval and adoption of the LBSAP
- Implementation of a minimum of three biodiversity initiatives within the first three years of the LBSAP time frame

This document constitutes the LBSAP for the Bergrivier Municipality which was approved by the Bergrivier Municipal Council in May 2011.

The key sections of this LBSAP are the;

- Stakeholder consultation process
- Biodiversity priority identification and analysis
- Biodiversity strategic and action planning
- Implementation plan
- Review, monitoring and evaluation of the LBSAP
- Legislative and policy framework that informed the development of the LBSAP

### **STAKEHOLDER CONSULTATION PROCESS**

The LBSAP was developed in consultation with local and regional stakeholders. Stakeholders who contributed to the Bergrivier Biodiversity Report (2010), as well as selected other stakeholders who



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could add value to the process were identified and consulted with. The objectives of the consultation process were to;

- Identify the biodiversity priority issues
- Identify how the core functions of various stakeholders impact on biodiversity
- Identify interventions aimed at the direct and indirect conservation and promotion of biodiversity in the municipal area which have the potential to be complemented and built on through the LAB process
- Solicit inputs from stakeholders on initiatives they would like to see incorporated into the biodiversity plan
- Identify partnership opportunities that the Municipality can make use of to promote the conservation of biodiversity.

The stakeholders consulted with gave valuable input into the process and their contributions are acknowledged with gratitude.

### **BIODIVERSITY PRIORITY IDENTIFICATION AND ANALYSIS**

The Bergrivier Biodiversity Assessment Report (2010) provides a good overview of the biodiversity issues that BM needs to address. The stakeholder consultation process did not aim to re-identify these issues but rather prioritise them through the LBSAP. Eight priority issues were identified namely;

- **Institutionalisation of biodiversity at Bergrivier Municipality**  
Biodiversity is not integrated into the institutional framework, governance processes, regulatory processes and policies of the Municipality. There is also no dedicated environmental unit or strategically placed position on the staff structure to champion biodiversity and environmental issues which results in a fragmented and ad hoc approach to their management.
- **Integration of biodiversity into municipal planning frameworks and processes**  
Municipal planning, specifically land use planning has a significant impact on the conservation of biodiversity. BM's municipal planning frameworks do not adequately incorporate biodiversity considerations or address the conservation of Bergrivier's biodiversity.
- **Conservation and management of freshwater aquatic biodiversity**  
Water is one of the most important ecosystem services and an adequate supply of water of an acceptable quality is a prerequisite to human well-being as well as social and economic development. There is a direct correlation between the health of freshwater aquatic ecosystems and the quantity and quality of water they provide. BM's water resources are scarce and the quality is deteriorating.

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### ✦ **Conservation, management and development of the Berg Estuary**

The Berg Estuary is the most valuable biodiversity asset in the Municipality and is home to a multitude of birds, fish and invertebrates and has its own unique vegetation. It is also a provider of a range of ecosystem services that support the local economy (fishing, salt production etc). It is ranked as the third most important estuary of conservation importance in South Africa, yet its only protection is the broad parameters of national legislation. The management of the Berg Estuary is complex as there are a multitude of aspects that need to be managed that cross the functional areas of various organs of state and it is imperative that Municipalities responsibilities be defined and they execute these responsibilities.

### ✦ **Conservation and management of terrestrial biodiversity**

BM's terrestrial biodiversity is under threat and is diminishing. There are significant corridors of terrestrial biodiversity along the coast, but extensive housing developments in these areas are a potential threat. In rural areas the remaining terrestrial biodiversity is in private ownership and is under threat from agriculture and mining etc. Urban areas are particularly devoid of biodiversity, especially industrial, business and low cost residential areas. BM must devise innovative ways to protect and promote biodiversity on its own land and encourage private land owners to do the same.

### ✦ **The impact of waste and pollution on biodiversity**

Waste and pollution are ever present and have a severe effect on biodiversity. The Municipality runs an efficient cleansing and waste removal service for domestic and business waste in urban areas, but their unlicensed waste disposal sites are a threat to biodiversity and human well being. The Municipality is in process of addressing its unlicensed waste disposal sites and recycling but they this issue is nevertheless included in the LBSAP due to the high level of importance attributed to this issue by stakeholders.

### ✦ **Lack of biodiversity awareness**

A lack of biodiversity awareness is cross cutting and underlies all the priority issues addressed in this LBSAP. There is a general lack of awareness as to what constitutes biodiversity, the importance of biodiversity, how easily biodiversity can be irreparably damaged and the sustainable use of biodiversity. There is also a general lack of awareness as to what different stakeholders (individuals, businesses, political leaders, officials, communities etc) can do to conserve biodiversity.

### ✦ **Mainstreaming biodiversity into local economic development**

Local economic development is a cross cutting issue that underlies all the priority issues addressed in this LBSAP. The National Strategic Biodiversity Assessment (NBSA) is premised on the mainstreaming of biodiversity into the economy which has established a fundamental link between biodiversity and local economic development. There is also an

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inextricable link between poverty and the loss of biodiversity. In order to effectively conserve its biodiversity, the Municipality must address poverty.

### BIODIVERSITY STRATEGIC AND ACTION PLANNING PROCESS

The following principles underlie the development of the LBSAP:

- The LBSAP must establish the foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices.
- The LBSAP must facilitate legal compliance.
- The LBSAP must enable the Municipality to lead by example
- The LBSAP must consider broader environment issues that relate directly to the conservation of biodiversity as the Municipality has no environmental plan
- The LBSAP must make optimal use of available resources and opportunities
- The LBSAP must promote socio economic development

The Municipality's vision for biodiversity is;

*"To develop the Bergrivier Municipality in a sustainable manner through the integration of effective administration, biodiversity conservation and maintenance of environmental goods and services, development planning and growth of the local economy"*

The municipality's mission for biodiversity is

*"To achieve the sustainable development of the Bergrivier Municipality through:*

- 1 *Effective conservation and environmental management of important biodiversity features;*
- 2 *Co-operative governance and collaboration with industry, civil society and communities;*
- 3 *Growth of the local economy;*
- 4 *Effective administration, land use and development planning and decision making."*

The objectives of the LBSAP are;

1. Full integration of biodiversity conservation into the institutional and planning frameworks, governance and regulatory processes and policies of Bergrivier Municipality
2. Management, conservation and sustainable utilisation of Bergrivier Municipality's aquatic and terrestrial biodiversity assets
3. Community appreciation and active participation in the conservation of Bergrivier Municipality's biodiversity
4. Enhanced human well being and poverty reduction through the mainstreaming of biodiversity conservation into the local economy

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A total of 10 strategies were formulated to achieve the objectives. Each strategy was then broken down into projects to be implemented over the 10 year duration of the LBSAP. Projects were categorised as;

- Short term                      1-3 years
- Medium term                    4-5 years
- Long term                        6-10 years

The LAB programme requires the Municipality select a minimum of 3 projects to implement within the first three years of its membership of the Programme. BM selected five projects namely;

**1. Create a position for an environmental manager /officer in the office of the municipal manager and fill the position with a suitable incumbent**

This project entails providing the Municipality with a dedicated sufficiently skilled strategically placed person to coordinate the management of biodiversity.

**2. Biodiversity training and induction programme for Councillors, officials and ward committee members**

This is a two part project that entails providing theoretical biodiversity training to all councillors, senior officials and ward committee members as well as a practical induction programme to empower decision makers and ward committee members to relate what they have learnt to their own environment by practically showing them the biodiversity assets of their own area and the factors that are detrimental to it or could potentially destroy it.

**3. Development of an Invasive Species Monitoring, Control and Eradication Plan**

The development of the Invasive Species Monitoring, Control and Eradication Plan will ensure legal compliance, and enable the Municipality to develop a systematic and holistic approach to alien eradication which will in turn enable it to access funding and support from existing alien eradication programmes which will lead to job creation.

**4. Actively participate in the activities of the BEMF and fulfil the municipality's role in the management, conservation development and sustainable use of the Berg Estuary**

The Berg Estuary is the Municipality's most important biodiversity asset and a significant economic asset. RAMSAR status will enhance its economic potential which will directly benefit BM. As it is BM that stands to gain the most benefit from this status it is appropriate that it play a leading role in the management, conservation and sustainable development of the Estuary.

**5. Develop and implement an annual awareness programme**

This project aims to instil a constant awareness of the importance of conserving biodiversity and broader environmental issues.

The full scope of these and the other projects is detailed in the report.

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**IMPLEMENTATION PLAN**

The implementation plan details the manner in which the municipality will implement the short term projects in terms of;

- Outcomes
- Key activities
- Resources
- Roles and responsibilities
- Time frames (Financial year)
- Locality (Ward / Area)

**REVIEW, MONITORING AND EVALUATION OF THE LBSAP**

The LBSAP will be included in the IDP of the Municipality as a sector plan, and reviewed on an annual basis together with the IDP. The projects will be included in the Service Delivery Budget Implementation Plans (SDBIP's) of the Municipal Manager and Directors and progress will be reviewed by the Municipal Council on a quarterly basis.

**LEGISLATIVE AND POLICY FRAMEWORK**

The LBSAP was informed by various legislation and policy frameworks including the Constitution, international legislation, national legislation, national policies, provincial legislation, provincial policies, district policies and local policies.

## 1 INTRODUCTION

Bergrievier Municipality (BM) is a Category B (Local Municipality) with a collective executive system combined with a ward participatory system in terms of the Municipal Structures Act 117 of 1998. BM is situated in the West Coast District of the Western Cape Province of South Africa. The municipal area covers a geographic area of 4407 square kilometres and has a population of 56 000 people. The municipal area comprises the urban settlements of Redelinghuys, Eendekuil, Aurora, Velddrif, Porterville and Piketberg as well as Goedverwacht and Wittewater which are privately owned towns belonging to the Moravian Church of South Africa. The Municipal area also comprises an extensive rural area and a coastal strip.

BM is a member of Local Action for Biodiversity (LAB) Programme, which is run by ICLEI – Local Governments for Sustainability’s Global Biodiversity Centre, in partnership with International Union for Conservation of Nature (IUCN). The key objective of the LAB programme is to support municipalities to integrate biodiversity into all aspects of their local governance.

The LAB programme is a five step process that entails;

- Undertaking an assessment of local biodiversity and the way in which it is managed. BM completed this assessment in June 2010.
- Political commitment to biodiversity protection through signature of the Durban Commitment. BM signed the Durban Commitment in November 2010.
- Development of a Local Biodiversity Strategies and Action Plan (LBSAP) which is a 10 year plan detailing broad strategies and specific actions that the municipality will implement in a bid to conserve and enhance its biodiversity
- Formal approval and adoption of the LBSAP
- Implementation of a minimum of three biodiversity initiatives within the first three years of the LBSAP time frame

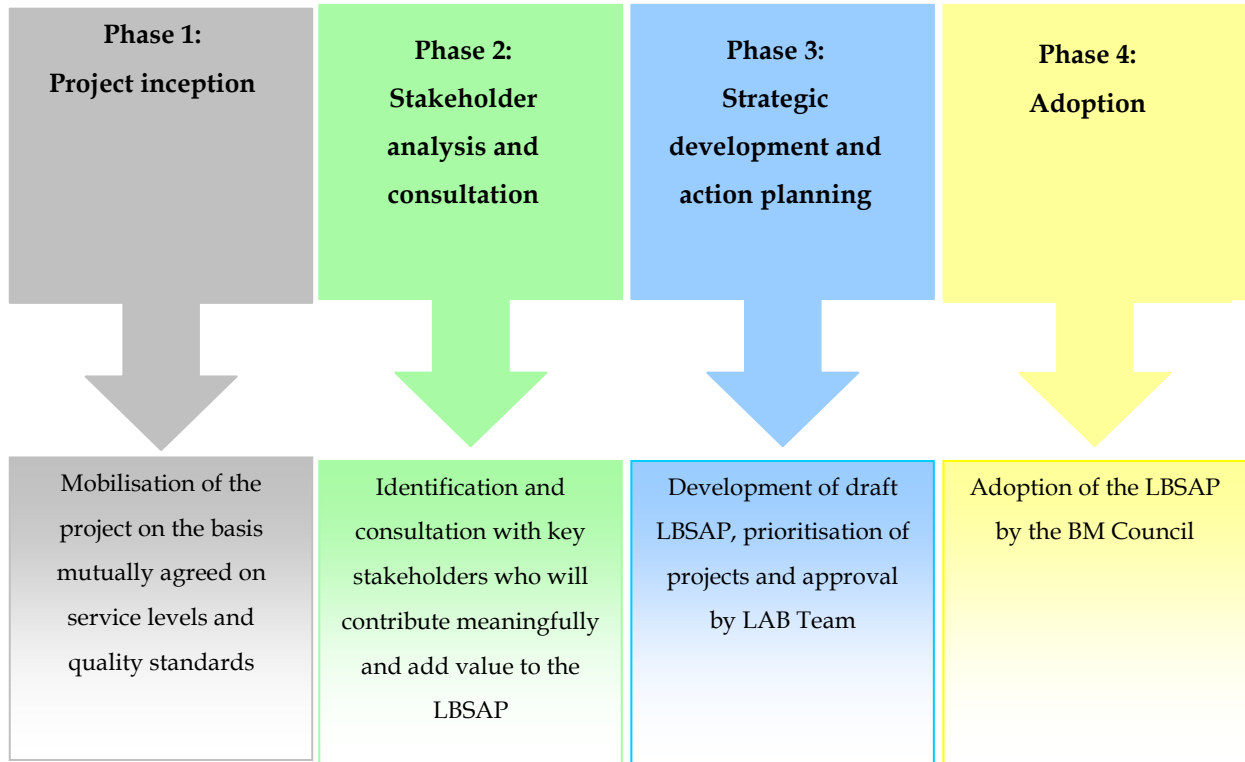
The LBSAP is a local version of the National Biodiversity Strategy and Action Plan (NBSAP) and the key requirements are that it should;

- Comply with LAB LBSAP guidelines
- Be developed in consultation with regional and local stakeholders
- Align to international, national and provincial legislation and policy prescripts
- Integrate with the strategic intent of the Municipality as set out in the IDP
- Encompass initiatives that can be performed by BM within the parameters of its capacity and the powers and functions assigned to it in terms of legislation

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BM adopted a four phase process for the development of its LBSAP. The phasing of the project and key outcomes of the phases is depicted in Figure 1;

*Figure 1: LBSAP Development process*



BM is the smallest municipality, and the only B municipality in South Africa to join the LAB Programme. BM is thus a pioneer for the B municipality in South Africa and smaller municipalities worldwide. This makes it all the more important that our LBSAP be credible and elicit the desired results. We would like to see the lessons learnt from the development and implementation of our LBSAP used to promote the preservation of biodiversity by local government nationally and internationally.

## 2 STAKEHOLDER CONSULTATION

The LBSAP was developed through a consultative process with local and regional stakeholders.

### 2.1 METHODOLOGY

Our methodology was based on the premise that the LBSAP is the third step in the LAB process, and stakeholders who contributed to the Bergrivier Biodiversity Report (2010) should also be consulted with to develop the LBSAP. This did not preclude the identification of additional stakeholders and a concerted effort was made to include as many stakeholders as possible. A critical limitation was that there are very few active NGO's and CBO's focussing on biodiversity /environmental issues in the municipal area. The stakeholders consulted with gave valuable input into the process and their contributions are acknowledged with gratitude. Consultation tools included individual interviews, focus group sessions and telephonic interviews. Stakeholders consulted with are indicated on **Annexure A**.

### 2.2 CONSULTATION OBJECTIVES

The objectives of the consultation process were to;

- Identify the biodiversity priority issues
- Identify how the core functions of various stakeholders impact on biodiversity (positive and negative)
- Identify interventions aimed at the direct and indirect conservation and promotion of biodiversity in the municipal area which have the potential to be complemented and built on through the LAB process
- Solicit inputs from stakeholders on initiatives they would like to see incorporated into the biodiversity plan
- Identify partnership opportunities that the Municipality can make use of to promote the conservation of biodiversity.



### **3 BIODIVERSITY PRIORITY IDENTIFICATION AND ANALYSIS**

The Bergrivier Biodiversity Assessment Report (2010) provides a good overview of the biodiversity issues that BM needs to address. The stakeholder consultation process did therefore not aim to re-identify issues, but rather prioritise issues that should be addressed through the LBSAP. The biodiversity priority identification and analysis included an assessment of causal factors underlying the priority issues, stakeholder interventions already in place or imminently planned, potential support and partnership opportunities and possible actions that can be implemented to address the priority issues.

The biodiversity priority issues that BM needs to address are;

1. Institutionalisation of biodiversity at Bergrivier Municipality
2. Integration of biodiversity into municipal planning frameworks and processes
3. Conservation and management of freshwater aquatic biodiversity
4. Conservation, management and development of the Berg Estuary
5. Conservation and management of terrestrial biodiversity
6. The impact of waste and pollution on biodiversity
7. Lack of biodiversity awareness
8. Mainstreaming biodiversity into local economic development

The following paragraphs provide a summary of the priority issues. Additional outcomes from the stakeholders are attached as Annexure B. It will be noted that there are substantial overlaps between the priority issues, but this is due to the cross cutting nature of biodiversity.

#### **3.1 INSTITUTIONALISATION OF BIODIVERSITY AT BERGRIVIER MUNICIPALITY**

Biodiversity is a cross cutting issue that warrants integration into the institutional framework, governance processes, regulatory processes and policies of the Municipality. BM has no dedicated environmental unit or strategically placed position on the staff structure to champion biodiversity and environmental issues which results in a fragmented and ad hoc approach to their management. Biodiversity is also to a large extent treated as a separate functional area for which no-one is responsible or accountable.

Biodiversity is affected by a broad spectrum of activities performed by a broad spectrum of role players including the Municipality. The environment is a concurrent national and provincial competency, and decisions pertaining to activities that will impact /potentially impact on biodiversity and the broader environment are the prerogative of the Province. The Municipality nevertheless plays a vital role in the Environmental Impact Assessment (EIA) and Mineral and

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Petroleum Resources Development Act (MPRDA) decision making process and the management of some of the environmental impacts arising from the implementation of these decisions.

The Municipality must also take responsibility for its own actions by ensuring that its activities have the minimum impact on the environment and where an impact is unavoidable, ensuring that the impact is managed in compliance with applicable environmental legislation.

Many organs of state have programmes and interventions in place to conserve biodiversity which could be tapped into by the Municipality, such as the Greater Cederberg Biodiversity Corridor (GCBC) and the Working for Water Programme etc. There are also private conservation initiatives such as the West Coast Biosphere Reserve which may also offer partnership opportunities from time to time. The Municipality needs to make optimal use of these opportunities if it is to succeed in conserving its biodiversity and the broader environment. A dedicated attempt is made by BM to participate in forums and attend meetings and workshops where biodiversity issues are tabled, but the challenge is that the Municipality's representatives often have multiple obligations on the same day and tend to prioritise interactions pertaining to legal processes and core functions above biodiversity.

The lack of institutionalisation of biodiversity, the fragmented approach to its management and the lack of continuity of representation often results in the BM not adequately being able to manage negative environmental impacts, missing partnership opportunities, not making optimal use of others and not adequately fulfilling the role expected of it. Access to strategically placed environmental expertise will enable the Municipality to play a positive role in biodiversity and environmental conservation.

### **3.2 INTEGRATION OF BIODIVERSITY INTO MUNICIPAL PLANNING FRAMEWORKS AND PROCESSES**

Municipal planning, specifically land use planning has a significant impact on the conservation of biodiversity, and it is imperative that biodiversity considerations and the NEMA principles be integrated into municipal planning frameworks. BM's municipal planning frameworks do not adequately incorporate biodiversity considerations or address the conservation of Bergrivier's biodiversity at this stage.

BM's key municipal planning frameworks are;

- ▼ **The Integrated Development Plan;**

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The Integrated Development Plan (IDP) is the principal strategic planning instrument of the Municipality, and should include specific objectives and strategies to address biodiversity and the environment. The IDP is revised on an annual basis and this omission can be easily rectified.

✦ **The Spatial Development Framework;**

The Spatial Development Framework (SDF) should take cognisance of the Municipality's critical biodiversity and environmentally sensitive areas by making provision for uniform and appropriate spatial planning categories, identifying appropriate land uses and establishing policy guidelines for development of these areas. The current SDF was done in 2002 and partially revised in 2008. This preceded the development of the Biodiversity Sector Plan and Critical Biodiversity Area (CBA) maps for the municipalities of the West Coast District which were developed by Cape Nature as an aid to municipal planning and decision making. Changes in ward delimitation have also had an impact on the SDF, with the result that the Municipality does not have uniform spatial planning categories and development guidelines for areas that need to be conserved.

✦ **Land Use Management Schemes;**

Land Use Management Schemes (LUMS) should regulate land use in a manner that gives effect to the environmental and biodiversity objectives of the IDP and the policy guidelines of the SDF. LUMS should guide development of land by the municipalities, other organs of state and private land owners in accordance with the Western Cape Land Use Planning Ordinance (LUPO) (subdivisions, rezoning, deviations etc). BM's LUMS comprise 3 schemes which were developed in 1988, 1989 and 2001. These schemes preceded the development of the Biodiversity Sector Plan and Critical Biodiversity Area (CBA) maps referred to above and were also promulgated very shortly after the promulgation of NEMA. They do not adequately take cognisance of the NEMA principles. There is also a lack of uniform and appropriate zonings to ensure the conservation of the municipality's biodiversity. It is of importance to note that most of BM's critical biodiversity is in private ownership and LUMS are an important tool for ensuring the conservation of this biodiversity.

The Municipality plays an important role in the planning related decision making processes of other organs of state on matters that affect the environment, the most frequent being EIA's/EMP's submitted in terms of NEMA and MPRDA. The Municipality needs to consider the implications of the activity for which these applications are submitted and adopt a formal positioning on it through the submission of comments to the relevant department.

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Decision making in relation to municipal planning is done by the Municipal Council or the Executive Committee and municipal officials in terms of delegated authority. Decisions regarding municipal planning are generally complex with far reaching consequences and are usually taken at the higher levels of the decision making hierarchy. The general practice is that the decisions of the Executive Committee and Municipal Council are guided by the expertise of officials. As alluded to in paragraph 3.1 above, BM does not have dedicated environmental / biodiversity expertise in house and this may compromise the basis from which decisions are made on planning and development.

Biodiversity loss is attributable to the loss and degradation of natural habitats. Two of the most significant causes of habitat loss and degradation are poverty with its concomitant reliance on natural resources and development (townships, housing, industrial development etc). BM must conserve its environment, but at the same time is in dire need of development to alleviate poverty. A balance therefore needs to be found between development and conservation. BM makes a concerted effort to include biodiversity considerations in its planning and decision making, but the lack of formal integration creates the perception that the Municipality is not adequately taking responsibility for its biodiversity and there is also the danger of creating unwanted precedents and attracting unscrupulous development applications.

### 3.3 CONSERVATION AND MANAGEMENT OF FRESHWATER AQUATIC BIODIVERSITY

Water is one of the most important ecosystem services. An adequate supply of water of an acceptable quality is a prerequisite to human well-being as well as social and economic development. There is a direct correlation between the health of freshwater aquatic ecosystems and the quantity and quality of water they provide. BM's water resources are scarce and the quality is deteriorating. A moratorium has already been placed on development in Porterville due to the limited availability of water in the area.

BM's freshwater aquatic eco systems comprise;

#### ➤ **Rivers including riparian zones and catchments;**

The Berg River is the most significant river system in BM and is the Municipality's primary water source. There are a number of tributaries which flow into the Berg River, namely the Sout, Platkloof, Boesmans and Matjies Rivers. There are also a number of unnamed tributaries which flow indirectly into the Berg River. Other rivers of importance are the Papkuils River which flows into the Rocherpan and various tributaries that flow into the Verlorenvlei. River system health is dependent on the quantity of water flowing through it, the quality of water emanating from its catchment and the health of the riparian zone.

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➤ **Ground water;**

Ground water is mainly stored in aquifers. Ground water is utilised as a secondary water source by BM, in Aurora, Redlinghuys and Eendekuil. Ground water is also used extensively by the agriculture sector for irrigation purposes. Terrestrial, river and wetland ecosystems depend on groundwater, and it is therefore imperative that BM manage their groundwater resources responsibly to ensure the health of above ground ecosystems.

➤ **Wetlands;**

The most significant wetlands in BM are Rocher Pan, the upper reaches of the Verlorenvlei and those adjacent to the Berg River and its tributaries, especially the Kruismans, Krom Antonies, Hol and Papkuils Rivers. Wetlands play an important role in the purification of water and maintenance of surface water systems. They are also the natural habitat for a multitude of birds, reptiles, invertebrates and amphibians.

➤ **Estuaries;**

The Berg Estuary is a priority issue in its own right and will be discussed under a separate heading. The negative impacts on the Berg River that are mentioned in the following paragraphs will reflect in the Estuary.

The Municipalities freshwater aquatic ecosystems are being negatively affected by;

- Climate change
- Reduction of flow in rivers due to upstream dams, sedimentation and geomorphologic changes
- Increasing and competing demands on fresh water resources including;
  - Extraction of river and ground water by the agriculture sector
  - Mining activities which impact on aquifers and underground water
  - Increased needs of people due to socio economic development (gardens, appliances etc)
  - Township development
- The presence of alien vegetation (aquatic and terrestrial)
- The presence of alien fish
- Pollution of rivers and underground water by waste water effluent, industrial effluent, pesticides and fertilisers
- Destruction of the riparian zones

BM needs to implement reactive and proactive measures to conserve its freshwater aquatic biodiversity and ensure human well being.

### **3.4 CONSERVATION, MANAGEMENT AND DEVELOPMENT OF THE BERG ESTUARY**

The Berg Estuary is probably the most valuable biodiversity asset in the Municipality and is home to a multitude of birds, fish and invertebrates and has its own unique vegetation. It is also a provider of a range of ecosystem services that support the local economy (fishing, salt production etc). It is ranked as the third most important estuary of conservation importance in South Africa, yet its only protection is the broad parameters of national legislation.

Cape Nature is facilitating the listing of the Berg Estuary as a Wetland of International Importance in terms of the RAMSAR Convention. The Municipality stands to benefit the most from this status, especially in terms of local tourism and should be playing a leading role in facilitating the management, conservation and sustainable development of the Estuary.

The management of the Berg Estuary is complex as there are a multitude of aspects that need to be managed that cross the functional areas of various organs of state including Cape Nature, Provincial Department of Environmental Affairs and Development Planning (DEADP), National Department of Environmental Affairs and Tourism (DEAT), National Department of Water Affairs and Forestry (DWAF), West Coast District Municipality (WCDM) and BM. The Community also have a vested interest in the conservation of the Berg Estuary and are keen to get involved. The Integrated Coastal Management Act (ICM) Act makes provision for the development of an Estuarine Protocol as well as national, provincial and municipal coastal management plans which will clarify the roles and responsibilities of each organ of state in time. Currently all municipal responsibilities in terms of the ICM Act are the responsibility of WCDM unless an agreement is reached to assign some of these responsibilities to BM. Negotiations are currently underway between WCDM and BM to finalise this division of roles and responsibilities.

Cape Nature has developed the Berg Estuary Management Plan to guide the sustainable use, conservation and development of the Berg Estuary and have also facilitated the establishment of the Berg Estuary Management Forum (BEMF) in line with the ICM Act which comprises all stakeholders. The Municipality is currently represented on the BEMF but is perceived to be underplaying its role. The Municipality's role entails supporting the activities of the BEMF, ensuring that its planning promotes the conservation, development and sustainable utilisation of the estuary and management of the estuary to the extent that its powers and functions allow (mainly local tourism and other municipal functions that may be assigned by WCDM in terms of an agreement)

### 3.5 CONSERVATION AND MANAGEMENT OF TERRESTRIAL BIODIVERSITY

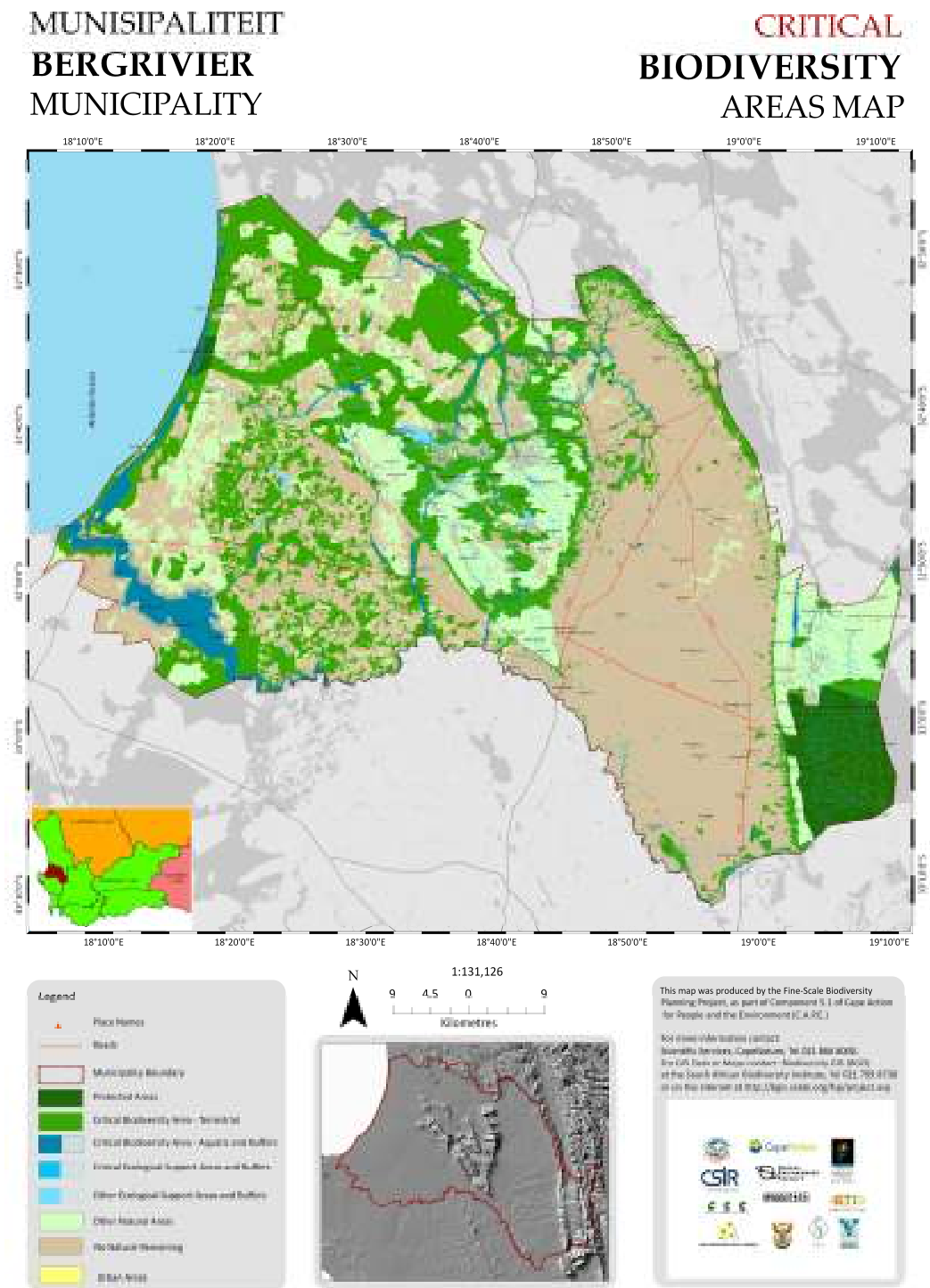
BM falls within the Cape Floristic Region and its vegetation comprises mainly fynbos and renosterveld. These vegetation types support a multitude of mammal, bird, insect and other invertebrate life, many of which are vital to our economy. Vegetation also acts as ecological corridors to facilitate the movement of wildlife from one area to another. As can be seen from Figure 2, below, there is very little terrestrial biodiversity remaining, especially between Piketberg and Porterville. There are some pockets and corridors of terrestrial biodiversity on the Piketberg Mountain and between the Piketberg Mountain and the coast. There are also significant corridors of biodiversity along the coast between Laaiplek and Dwarskersbos, but extensive housing developments in these areas are a potential threat.

Urban areas are particularly devoid of biodiversity, especially industrial, business and low cost residential areas. Urban areas play an important role in biodiversity conservation, especially trees and green corridors. There is also a link between urban biodiversity, human well being and local economic development and BM's LED strategy cites the lack of greening and unattractiveness of our towns as a development inhibitor. It is common knowledge that urbanisation is one of the most significant causes of biodiversity loss, and the challenge is that the more development the Municipality attracts to the area, the more urbanisation will take place. The Municipality must therefore devise innovative ways to protect and promote urban biodiversity.

Another challenge is that most of BM's remaining terrestrial biodiversity is on rural private land, and the Municipality has little control over its conservation. Privately owned terrestrial biodiversity is being lost through development of rural areas for agriculture and mining etc while alien vegetation infestations are also taking their toll. The Municipality needs to encourage private land owners to protect, rehabilitate and conserve their biodiversity.

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*Figure 2: BM critical biodiversity areas<sup>1</sup>*



<sup>1</sup> Maree, K.S. and Vromans, D.C. 2010. The Biodiversity Sector Plan for the Saldanha Bay, Bergrivier, Cederberg and Matzikama Municipalities



### 3.6 THE IMPACT OF WASTE AND POLLUTION ON BIODIVERSITY

Waste and pollution are ever present and have a severe effect on biodiversity. Ineffective waste management is one of the main causes of water, soil and air pollution. Waste management, cleansing and air pollution are all municipal functions which if done effectively can limit the impact of waste and pollution on biodiversity.

The Municipality runs an efficient cleansing and waste removal service for domestic and business waste in urban areas. It has constructed a waste transfer station at Piketberg from where solid waste deriving from the waste removal service is collected and disposed of at licensed sites. It also has controlled waste transfer sites in Porterville and Aurora where residents can dump their own dry waste.

The key issue is that the Municipality's unlicensed waste disposal sites at Piketberg, Porterville and Velddrif are still open and the community can access these sites anytime. There is no control over what gets dumped, with the result that hazardous and toxic waste could easily be dumped there. Unauthorised people are salvaging on these sites and are exposed to multiple health and safety risks. These sites are polluting the soil and ground water, especially the Piketberg site which is situated on a tributary that flows indirectly into the Berg River. The Piketberg and Porterville sites are burnt frequently which leads to pollution of the air in the towns and in particular the poorer residential areas. The Municipality is in process of addressing its unlicensed waste disposal sites but it is a complex, time consuming and costly process. It is also undertaking a pilot study to determine its waste levels for recycling purposes and plans to appoint a contractor to recycle waste in Piketberg in the near future.

Waste management holds immense economic potential and can lead to job creation. It was also cited as one of the more important issues by stakeholders, hence its inclusion as part of the LBSAP, even though the Municipality is in the initial stages of addressing the issue.

The Municipality also needs to address other forms of pollution, specifically air pollution<sup>2</sup>. Air pollution, especially the emission of greenhouse gasses is a major cause of climate change which in turn destroys biodiversity. Industry, the agriculture sector and transportation are just some of sources of air pollution.

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<sup>2</sup> The air pollution function may move to the WCDM

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**3.7 LACK OF BIODIVERSITY AWARENESS**

A lack of biodiversity awareness is cross cutting and underlies all the priority issues addressed in this LBSAP. There is a general lack of awareness as to what constitutes biodiversity, the importance of biodiversity, how easily biodiversity can be irreparably damaged and the sustainable use of biodiversity. There is also a general lack of awareness as to what different stakeholders (individuals, businesses, political leaders, officials, communities etc) can do to conserve biodiversity.

It became apparent during the identification of stakeholders for the consultation process that there are few community organisations involved in the conservation of the environment in the municipal area. This is a matter of concern because the community plays an important role in the conservation of the environment, and it is very often community organisations that are first to observe potential and actual threats to the environment.

The Municipality has a vested interest in creating awareness and must work cooperatively with other organs of state to actively and continuously promote awareness. It is believed that targeted awareness initiatives can have a positive effect on all aspects of biodiversity and the broader environment and if done effectively they can also have a multiplier effect.

**3.8 MAINSTREAMING OF BIODIVERSITY CONSERVATION INTO LOCAL ECONOMIC DEVELOPMENT**

Local economic development is a cross cutting issue that underlies all the priority issues addressed in this LBSAP. The NSBA is premised on the mainstreaming of biodiversity into the economy which has established a fundamental link between biodiversity and local economic development. There is also an inextricable link between poverty and the loss of biodiversity. It is frequently the poor who rely on ecosystems services such as rivers for water and fishing and soil for crops and grazing etc.

In order to effectively conserve its biodiversity, the Municipality must address poverty. There are a number of ways in which this should be done including;

- The creation of a climate conducive to local economic development. The Municipality needs to provide an environment that is attractive to live and work in, as well as services of an acceptable standard to attract and support development.
- The establishment of formal links between biodiversity and tourism. Bergrivier's tourism sector is to a large extent dependent on biodiversity and by promoting biodiversity the Municipality can grow the tourism sector and the economy.

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- ✦ Wherever possible, the Municipality needs to link the conservation of biodiversity with skills development, job creation and entrepreneurship (eg alien clearing, manufacturing of items from alien vegetation, recycling etc).
- ✦ Implementation of the BM LED Strategy which has the potential to alleviate poverty and contribute to biodiversity conservation.

## 4 BIODIVERSITY STRATEGIC AND ACTION PLANNING

This section is the crux of the LBSAP as it defines the strategic direction that BM will implement to conserve its biodiversity. The objectives, strategies and projects are based on a synthesis of stakeholder inputs and research and were confirmed at a stakeholder workshop held on 18 April 2011.

### 4.1 PRINCIPLES UNDERLYING THE DEVELOPMENT OF THE LBSAP

There are numerous approaches that can be adopted to develop a LBSAP. The approach that is adopted must respond to the unique geographic, environmental, socio economic and political circumstances and take cognisance of constraints and opportunities available to the municipality for which it is developed. The approach to the development of this LBSAP is premised on the following principles;

- **The LBSAP must establish the foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices.**

Other municipalities who are part of the programme have a foundation in place in one form or another such as in house environmental expertise, an environmental management department, biodiversity policies and plans etc from which they can plan and implement high visibility and high impact biodiversity projects. BM has none of these in place and our approach entails establishing a solid institutional and governance foundation to ensure that when high visibility and high impact projects are incorporated through revisions of the LBSAP the Municipality will be in a position to implement and sustain them.

- **The LBSAP must facilitate legal compliance.**

The Municipality needs to ensure that it is complying with all mandatory requirements of legislation applicable to biodiversity and environmental conservation.

- **The LBSAP must enable the Municipality to lead by example**

The Municipality must ensure that it practices what it is advocating by addressing omissions and practices arising from its own activities that may have a negative impact on biodiversity and the environment.

- **The LBSAP must consider broader environment issues that relate directly to the conservation of biodiversity**

Common practice at municipalities includes either incorporating biodiversity as a component of an environmental plan or developing a separate biodiversity plan that is complemented by an environmental plan. BM does not have an environmental plan in place and the closest to this is the West Coast District Municipality Integrated Environmental Management Plan that was developed for the 2006/7 to 2010/11 financial years and which is due for review. This LBSAP therefore addresses some broader issues more appropriate to an

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environmental plan, because these issues are inextricably linked to the conservation of biodiversity and not appropriately addressed elsewhere.

### ➤ **The LBSAP must make optimal use of available resources and opportunities**

The Municipality has limited human and financial resources for the implementation of the LBSAP. Emphasis has been therefore placed on projects that can be done in house, on a low budget and through partnership opportunities and external programmes. Dual purpose projects that simultaneously address biodiversity and other critical issues have also been included to ensure that available funding is used optimally. Existing initiatives of the Municipality have also been capitalised on where such projects will have a positive impact on the conservation of biodiversity.

### ➤ **The LBSAP must promote socio economic development**

The LBSAP will capitalise on the conservation of biodiversity as a means to enhance the socio economic development of its communities.

## 4.2 MUNICIPAL COMMITMENT TO BIODIVERSITY CONSERVATION AND IMPLEMENTATION OF THE LBSAP

BM commits to the following to ensure the conservation of its biodiversity and the successful implementation of the LBSAP;

- The LBSAP will be incorporated into the IDP and performance management system of the Municipality
- Ward committees will be used as a mechanism to promote the conservation of biodiversity
- Biodiversity /environmental training needs will be incorporated into the Municipality's Skills Development Plan
- Existing initiatives that will contribute to biodiversity conservation that are not incorporated in this LBSAP such as ongoing street tree planting, development of the entrance to Piketberg, closure of the Velddrif waste disposal site and the appointment of a contractor to undertake recycling in Piketberg etc will be continued with
- Proactive planning will be undertaken in respect of projects, especially those that will be undertaken through external programmes, to ensure that they reflect in the budgetary cycle of the organ of state responsible for the implementation or funding of these programmes
- The LED Strategy of the Municipality will be implemented as it incorporates a number of projects that can contribute to biodiversity conservation.

## 4.3 VISSION AND MISSION

The Bergrivier Biodiversity Report formulated the following vision and mission for biodiversity.

*Table 1: Vision and mission for biodiversity*

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<b>Vision:</b>	“To develop the Bergrivier Municipality in a sustainable manner through the integration of effective administration, biodiversity conservation and maintenance of environmental goods and services, development planning and growth of the local economy”
<b>Mission:</b>	<p>“To achieve the sustainable development of the Bergrivier Municipality through:</p> <ol style="list-style-type: none"> <li>1. Effective conservation and environmental management of important biodiversity features;</li> <li>2. Co-operative governance and collaboration with industry, civil society and communities;</li> <li>3. Growth of the local economy;</li> <li>4. Effective administration, land use and development planning and decision making.”</li> </ol>

**4.4 OBJECTIVES, STRATEGIES AND PROJECTS**

The following paragraphs set out the objectives, strategies and projects of the LBSAP.

**4.4.1 OBJECTIVES**

The objectives of the LBSAP are;

5. Full integration of biodiversity conservation into the institutional and planning frameworks, governance and regulatory processes and policies of Bergrivier Municipality
6. Management, conservation and sustainable utilisation of Bergrivier Municipality’s aquatic and terrestrial biodiversity assets
7. Community appreciation and active participation in the conservation of Bergrivier Municipality’s biodiversity
8. Enhanced human well being and poverty reduction through the mainstreaming of biodiversity conservation into the local economy

**4.4.2 STRATEGIES**

Ten strategies have been formulated to achieve the objectives. The strategies are indicated in the table below;

*Table 2: Objectives and strategies*

<b>Objectives</b>	<b>Strategies</b>
1. Full integration of biodiversity conservation into the institutional and planning frameworks, governance and regulatory processes and	<ol style="list-style-type: none"> <li>1. Develop the capacity of Bergrivier Municipality to effectively manage its biodiversity and broader environmental issues</li> <li>2. Integrate biodiversity considerations into municipal planning, policies and by-laws</li> </ol>

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policies of Bergrivier Municipality	
2. Management, conservation and sustainable utilisation of Bergrivier Municipality's aquatic and terrestrial biodiversity assets	3. Eradicate alien and invasive species that are impacting negatively on Bergrivier Municipality's biodiversity 4. Conserve freshwater aquatic ecosystems through sustainable use and management of water resources 5. Reduce the impact of waste and pollution on biodiversity 6. Engage actively and implement measures to facilitate private conservation of Bergrivier's biodiversity 7. Clean and green urban areas to promote biodiversity
3. Community appreciation and active participation in the conservation of Bergrivier Municipality's biodiversity	8. Create an awareness of the importance of conserving biodiversity through targeted awareness programmes
4. Enhanced human well being and poverty reduction through the mainstreaming of biodiversity conservation into the local economy	9. Facilitate international conservation status for the Berg Estuary through active participation on the BEMF 10. Link biodiversity conservation to job creation and entrepreneurship

**4.4.3 PROJECTS**

Each strategy has been broken down into a number of projects. Projects have been classified as either;

- Short term                      1-3 years
- Medium term                    4-5 years
- Long term                        6-10 years

Some projects are of such a nature that they can be implemented annually, on an ongoing basis or more than once in the cycle of the LBSAP.

The following paragraphs provide an overview of all the projects, including the project term, outcomes, scope and support and funding. This is followed by a tabular summary that depicts the alignment of the objectives, strategies and projects.

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4.4.3.1 OBJECTIVE 1: FULL INTEGRATION OF BIODIVERSITY CONSERVATION INTO THE INSTITUTIONAL AND PLANNING FRAMEWORKS, GOVERNANCE AND REGULATORY PROCESSES AND POLICIES OF BERGRIVIER MUNICIPALITY

STRATEGY 1:

DEVELOP THE CAPACITY OF BERGRIVIER MUNICIPALITY TO EFFECTIVELY MANAGE ITS BIODIVERSITY AND BROADER ENVIRONMENTAL ISSUES

**Project:** Create a position for an environmental manager /officer in the office of the municipal manager and fill the position with a suitable incumbent.

**Outcomes:** Co-ordinated management of biodiversity and broader environmental issues, dedicated in house environmental expertise, consecutive representation at meetings and forums and optimal utilisation of available partnerships and opportunities.

**Term:** Short

**Scope:** This project aligns to the principle of establishing a foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices. A lack of resources and competing priorities mean that it is unlikely that BM will be able to establish an environmental planning unit in the short to medium term or even be able to budget significant amounts for the conservation of biodiversity. Biodiversity conservation will therefore depend on a holistic approach to its management and the establishment of relationships and partnerships that will enable BM to tap into funding, projects and programmes of other organs of state, and possibly even private initiatives. This project entails providing the Municipality with a dedicated sufficiently skilled strategically placed person to coordinate the management of biodiversity.

**Funding:** BM will must make provision on its own budget for such a position

**Support:** WCDM, DEAT, DEADP and ICLEI's Global Biodiversity Centre (Local Action for Biodiversity) can provide technical advice and support.

**Project:** Biodiversity training and induction programme for councillors, officials and ward committee members

**Outcomes:** Councillors, officials and ward committee members will have a common and holistic understanding of biodiversity conservation and be able to apply it in the execution of their responsibilities within their own environment.

**Term:** Short

**Scope:** This project aligns to the principle of establishing a foundation for the long term



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integration of biodiversity considerations into all aspects of the institution and its governance practices and promoting socio economic development through skills training.

Biodiversity must be integrated into all strategic and sector plans of the Municipality, decision making, departmental planning, operational management and community governance. The Municipality currently has no in house environmental expertise, and even if a dedicated official is appointed full integration can not be achieved by one official alone.

This is a two part project; the first part entails providing theoretical biodiversity training to all councillors, senior officials (Municipal manager, directors, section heads and LED officials), and ward committee members to provide them with a common and holistic understanding of the biodiversity concept as well as an understanding of the importance of conserving biodiversity. The second part entails an induction programme to empower decision makers and ward committee members to relate what they have learnt to their own environment by practically showing them the biodiversity assets of their own area and the factors that are detrimental to it or could potentially destroy it. The pending municipal elections mean that the Municipality will have new councillors and ward committees taking office for the next five years and this is the ideal opportunity to instil an appreciation and understanding of local biodiversity into BM's political and community governance structures.

This project should be repeated at least every five years when new councillors and ward committees are appointed and when there are significant changes to the senior management structure.

**Funding:** The SANBI Municipal Support Programme can be approached to provide the training. Alternatively own funding can be provided and a service provider appointed.

**Support:** If the need for biodiversity training is incorporated into the Municipality's Skills Development Programme, part of the expenditure incurred for the appointment of the service provider could be reclaimed from the SETA. Cape Nature indicated that they would be willing to participate in the induction component.

**STRATEGY 2:  
INTEGRATE BIODIVERSITY CONSIDERATIONS INTO MUNICIPAL PLANNING, POLICIES  
AND BY-LAWS**

**Project:** Develop and implement a policy to guide development within critical biodiversity, critical ecological support and other natural areas

**Outcomes:** Conservation of biodiversity through formal adoption of the Biodiversity Sector Plan and CBA maps as a basis from which municipal planning and decision making is done

**Term:** Medium

**Scope:** This project aligns to the principle of establishing a foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices.

Ideally the SDF of the Municipality should provide sufficient guidelines to regulate development in critical biodiversity, critical ecological support and other natural areas and this should be supported by the provisions of the LUMS. As indicated under the priority analyses, the current SDF and LUM'S were completed prior to the development of the Biodiversity Sector Plan and CBA maps. Both also bear the consequences of changes in municipal boundary delimitation. The SDF and LUMS do therefore not adequately address the conservation of critical biodiversity and critical ecological support areas. The solution to this would be to undertake a full revision of the SDF and develop a singular LUMS for the whole municipality, but these projects would require considerable financial resources and time. Given that we are losing biodiversity by the day a short term solution is needed.

This project entails the development of a policy within the framework provided by the Biodiversity Sector Plan, Rural Development Guidelines and other appropriate frameworks to guide development applications in critical biodiversity, critical ecological support and other natural areas that are worth conserving. Such a policy would need to set out what types of development, if any are permissible in these areas and conditions and procedures that need to be adhered to. It will be necessary to develop a GIS overlay of the CBA maps in order to identify properties that would be affected by the policy.

Such a policy will also facilitate municipal decision making in terms of LUPO applications and enhance the efficacy of the Municipality's role in the NEMA and MPRDA decision making process. It will also enable the Municipality to clearly

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convey to developers that it will not consider development proposals that will be detrimental to the biodiversity of the Municipality. Such a policy should also inform future revisions of the SDF and LUMS.

**Funding:** The SANBI Municipal Support Programme could be a potential source of securing funding. Alternately BM could provide own funding and appoint a service provider or undertake the project in house.

**Support:** DEADP, WCDM, Cape Nature and SANBI can provide technical advice

**Project:** **Rezone municipal critical biodiversity and critical ecological support areas**

**Outcomes:** Enhanced conservation status of municipal critical biodiversity areas, ecological support areas and other natural or conservation worthy areas

**Term** Medium

**Scope:** This project aligns to the principle of establishing a foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices. The project entails the Municipality according the highest possible conservation status (excluding protected area status) to its own critical biodiversity areas, ecological support areas and other natural or conservation worthy areas within the limitations of the existing LUMS.

**Funding:** BM could provide own funding and appoint a service provider or an additional planner could be appointed on a contract basis to undertake the project in house. As it is a medium term project, alternative funding sources may be identified with the revision of the LBSAP

**Support:** SANBI, Cape Nature, WCDM and DEADP can provide technical advice.

**Project:** **Develop and implement an urban greening policy /by-law**

**Outcomes:** Detrimental effects of urbanisation on biodiversity are mitigated by enforcing conservation and promotion of urban biodiversity. Local economic development can be enhanced through the creation of an attractive environment.

**Term:** Medium

**Scope:** This project aligns to the principle of promoting socio economic development. The priority analysis revealed that BM's urban areas lack greening initiatives which limits their conduciveness to human well being and makes them unattractive to development. This is especially apparent in industrial, business and low cost residential areas. This is a common consequence of urbanisation and this project proposes to create a more attractive environment, through the planting of trees and other vegetation and the development of green corridors that will improve air

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quality and bring biodiversity, especially birds and insects back into urban areas.

The objectives of the proposed urban greening policy /by-law should be to regulate the conservation of existing trees and other vegetation on municipal land and where possible private land, and encourage compensation for the destruction of urban biodiversity. Such a policy/by-law should include but not be limited to the following;

- Street trees:

Species of trees that may be planted on sidewalks, removal of street trees by the Municipality, penalties for damage to street trees and unauthorised removal of street trees.

- Provision of trees / vegetation on parking areas and sidewalks of private developments:

Just as developers are required to provide parking, so too should they provide trees /vegetation. The policy should require developers to provide a certain number of trees /square meterage of vegetation in parking areas and on sidewalks abutting their development.

- Provision of trees for low cost housing developments:

Developers appointed to build low cost housing should be required to plant one tree of an approved species (indigenous and non invasive or a non invasive fruit tree) per house and incorporate a watering mechanism for the tree that uses grey water. (This could also be a stand alone project until such time as the policy /by-law is developed)

- Protection of trees of ecological, cultural and historical significance

- Submission of landscape development plans:

Landscape plans should be submitted for developments of a certain size / developments within a defined proximity of critical biodiversity and critical ecological support areas. These plans will enable the Municipality to encourage water wise indigenous landscaping and prevent the planting of trees that could potentially cause damage to infrastructure when planted close to the boundary such as Ficus sp.

A by-law is preferable to a policy as it can contain penalties which can be enforced, but a policy is a good starting point which will allow the Municipality to test the provisions before it is promulgated as a by-law.

**Funding:**

BM will have to provide own funding and appoint a service provider or undertake the project in house. As it is a medium term project, alternative funding sources may be identified with the revision of the LBSAP

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- Support:** SANBI, Cape Nature, WCDM and DEADP can provide technical advice.
- Project:** **Develop and implement a green procurement policy**
- Outcomes:** Procurement will reflect the Municipalities conservation ethic and the private sector will be encouraged to implement green business practices and provide eco friendly products. It also has the potential to promote socio economic development.
- Term:** Medium
- Scope:** This project aligns to the principle of leading by example and can also promote socio economic development. It is important that BM's commitment to biodiversity conservation reflect in all its practices. BM is a significant consumer of goods and services and goods procured by the Municipality as well as services provided on behalf of the Municipality by service providers need to reflect the Municipalities conservation ethic. The Municipality can be a little specific when it comes to the procurement of goods, but has little if any control over the businesses practices of its suppliers. The proposed policy should encourage suppliers to provide products and adopt business practices that promote biodiversity and environmental conservation by allocating functionality points. Practical examples of products qualifying for a point allocations would be benches made from alien invaders by local communities as opposed to benches made of other trees in factories and solar lights on the outside of subsidised houses as opposed to standard electrical ones. Such a policy will have to address all aspects of the procurement process from demand to acquisition to disposal of assets. The existing procurement policy of the Municipality could also be revised to incorporate these provisions.
- Funding:** BM will have to provide own funding and appoint a service provider or undertake the project in house. As it is a medium term project, alternative funding sources may be identified with the revision of the LBSAP
- Support:** The policy could be modelled on the "Green Paper on Greening the Procurement of Goods and Services in the Provincial Government of the Western Cape" which was put out for public comment in 2010. WCDM, DEADP and the Department of Economic Development and Tourism can provide technical advice.
- Project:** **Develop and implement an Air Quality By- law<sup>3</sup>**
- Outcomes:** Improved air quality through enhanced regulation
- Term:** Medium

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<sup>3</sup> The air pollution function may move to WCDM in which case this project will fall away.

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**Scope:** This project aligns to the principle of legal compliance. The Municipality is responsible for monitoring air pollution and meeting national and provincial ambient air quality limits, and may promulgate by-laws for this purpose. The West Coast District Municipality is in process of compiling an Air Quality Management Plan as required by section 15(2) of the Air Quality Act, which will inform the development of the Air Quality By-law.

**Funding:** BM will have to provide own funding and appoint a service provider or undertake the project in house. As it is a medium term project, alternative funding sources may be identified with the revision of the LBSAP

**Support:** WCDM and DEADP can provide technical advice.

**Project:** **Revision of the SDF**

**Outcomes:** A conservation orientated spatial planning framework for BM

**Term:** Medium

**Scope:** This project aligns to the principle of establishing a foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices as well as legal compliance. The SDF must be revised every five years and it is proposed that the next revision focus on aligning it to the Biodiversity Sector Plan and CBA maps and address the development of uniform spatial planning categories and development guidelines to enhance conservation. The revised SDF should inform the development of a new LUMS for the Municipality.

**Funding:** BM will have to provide own funding and appoint a service provider. As it is a medium term project, alternative funding sources may be identified with the revision of the LBSAP

**Support:** SANBI, WCDM and DEADP can provide technical advice.

**Project:** **Develop a uniform LUMS for the Bergrivier Municipality**

**Outcomes:** A single LUMS with appropriate conservation zonings and development guidelines for the whole Municipality

**Term:** Long

**Scope:** This project aligns to the principle of establishing a foundation for the long term integration of biodiversity considerations into all aspects of the institution and its governance practices.

The Municipality needs to accord the highest possible conservation status to its own critical biodiversity and critical ecological support areas, and enable and encourage private land owners to do the same. Conservation worthy land can be declared a

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protected environment in terms of the Protected Areas Act, but as this might not always be feasible or practical the Municipality needs to look to other options such as the rezoning conservation worthy areas to an appropriate zoning. As indicated under the priority analyses, the Municipality currently uses three separate LUMS, which have limited conservation zonings. This project entails developing a singular LUMS for the whole Municipality which makes provision for uniform and appropriate conservation zonings for public and private property.

**Funding:** As this is a long term project, funding sources will be identified with the revision of the LBSAP

**Support:** SANBI and DEADP can provide technical advice.

**4.4.3.2 OBJECTIVE 2: MANAGEMENT, CONSERVATION AND SUSTAINABLE UTILISATION OF BERGRIVIER MUNICIPALITY'S AQUATIC AND TERRESTRIAL BIODIVERSITY**

**STRATEGY 3:**

**ERADICATE ALIEN SPECIES THAT ARE IMPACTING NEGATIVELY ON BERGRIVIER MUNICIPALITY'S BIODIVERSITY**

**Project:** Development and implementation of an Invasive Species Monitoring, Control and Eradication Plan

**Outcomes:** Job creation and restored integrity of aquatic and terrestrial ecosystems

**Term:** Short

**Scope:** This project aligns to the principles of legal compliance and promoting socio economic development. The Municipality is required to adhere to the provisions of Regulation 15 of CARA which requires it to eradicate certain species of alien vegetation in urban areas and Section 76(2)(a) of the Biodiversity Act requires it to have an "Invasive Species Monitoring, Control and Eradication Plan" for its area of jurisdiction which must include the following;

- separate sections dealing with marine species, plants, vertebrates, invertebrates and microbes
- a description of all land in the municipal area that is infested with invasive species
- an assessment on the extent of the infestation
- prioritization for control of the different areas of land that are infested
- prioritization for control of the different species occurring on the land
- current and proposed measures to monitor, control and eradicate invasive species
- rehabilitation measures
- a timetable for implementing the measures detailed in the plan (phases)
- indicators to measure progress and success with implementing the measures detailed in the plan

The eradication of invasive species, especially vegetation through various government programmes including Working for Water, Working for Wetlands, Working for the Coast and Land Care South Africa provides significant local employment and skills development opportunities. The Municipality appears to have very low infestation levels on its own land, but there are significant infestations



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on private land in the municipal area. The Municipality can not undertake invasive species eradication projects on private land and but needs to facilitate the establishment of these alien eradication programmes on private land so that the spread of invasive species can be controlled and local communities can benefit from the skills development and employment opportunities they provide. This will require coordination between the Municipality, private land owners and the various programmes.

A prerequisite to these programmes is a systematic and holistic approach to invasive species eradication and projects with a minimum of a three year lifespan. The development of the Invasive Species Monitoring, Control and Eradication Plan will not only ensure legal compliance, but also enable the Municipality to present the systematic approach required to bring these programmes to the Municipal area.

The Municipality needs to take cognisance of the fact that although alien vegetation is one of the most significant causes of the degradation of natural habitats (aquatic and terrestrial), there are also other alien invasive species such as alien fish (black bass) in dams and river systems that also need to be addressed.

The Invasive Species Monitoring, Control and Eradication Plan should clearly define phases to be implemented over the full duration of the LBSAP to ensure that the job creation component of the project is implemented.

**Funding:** BM can approach the SANBI Municipal Support Programme to source funding for the development of the plan. Alternatively BM will have to provide own funding and appoint a service provider. Invasive species eradication on municipal land can be implemented by the Municipality and funded through EPWP funding. Invasive species eradication on private land can be implemented and funded through Working for Water, Working for Wetlands, Land Care and Working for the Coast in coastal areas.

**Support:**

- Working for Water is working according to a programme based on its priorities which includes the Berg River. They are willing to make contributions to projects on municipal and private land (herbicides, biological control remedies and skills training). They also have aquatic alien vegetation eradication and a biological control sub programmes that can be accessed by the municipality or private land owners at any time. They have extensive information available on infestation levels of invasive vegetation which can be utilised for the plan.
- Working for Wetlands is willing to consider proposals for projects, providing that the project will endure for three or more years. (Municipal or private land)
- Working for the Coast is willing to consider proposals for alien eradication in

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coastal areas that will endure for three or more years and exceed R2.5 Million.  
(Municipal or private land)

- The Land Care Programme will support private land owners who wish to eradicate invasive species

**STRATEGY 4:**

**CONSERVE FRESHWATER AQUATIC ECOSYSTEMS THROUGH SUSTAINABLE USE AND  
MANAGEMENT OF WATER RESOURCES**

**Project:** Urban rain water harvesting

**Outcomes:** Conservation of aquatic eco systems through reduction of pressure on water resources, promotion of urban biodiversity and food security

**Term:** Medium

**Scope:** This project aligns to the principle of promoting socio economic development by providing skills and alleviating poverty. BM has high poverty levels and many of its households live under the breadline. These households depend on their 6 KL of free water to satisfy all their household needs, and can not afford to use this scarce and expensive commodity on watering gardens.

The proposed project entails the erection of water tanks at the houses of selected beneficiaries so that they can harvest rainwater. The harvesting of rainwater will enable impoverished households to supplement their water allocation and encourage them to plant fruit trees and develop food gardens (possibly even other trees and vegetation). Beneficiaries will be required to erect the tanks themselves and will develop skills in the process. Criteria will have to be developed to select a specific number of beneficiaries from each urban area. Criteria could be based on existing contributions to biodiversity and food security such as existing food garden initiatives. The selection of beneficiaries could at a later stage be linked to the garden competition proposed under Strategy 7. This project can be done on an annual / biannual basis depending on availability of DWAF funding. Rewarding community members for contributing to biodiversity and food security may encourage others to follow suit and qualify to participate in successive projects.

**Funding:** DWAF has funding available

**Support:** BM would have to appoint a service provider to undertake the project and manage the implementation. DWAF can provide the terms of reference for the appointment of the service provider.

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- Project:**        **Develop a water pollution risk reduction plan**
- Outcomes:**    Conservation of aquatic biodiversity through the mitigation of water pollution risks
- Term:**         Medium
- Scope:**        This project aligns to the principle of legal compliance by proactively enhancing the Municipalities compliance with the Water Services Act. This project has a dual purpose in that it mitigates the ever present threat of pollution of aquatic ecosystems and addresses the lack of a water pollution risk reduction plan in the Municipality's Disaster Management Plan. (The Disaster Management Plan only has a risk preparedness plan for water pollution) The project entails the identification of potential water pollution risks throughout the municipal area and the development and implementation of simple practical measures that can be implemented by all stakeholders to mitigate these risks. It is particularly important that the Municipality look closely at its own activities, especially its waste treatment works during this process.
- Funding:**      BM will have to provide own funding and appoint a service provider or undertake the project in house. As it is a medium term project, alternative funding sources may be identified with the revision of the LBSAP
- Support:**      DWAF can provide technical advice

**STRATEGY 5:**

**REDUCE THE IMPACT OF WASTE AND POLLUTION ON BIODIVERSITY**

- Project:**        **Close and rehabilitate all unlicensed waste disposal sites**
- Outcomes:**    Reduction of air, soil and water pollution and removal of a potential risks to human health and safety.
- Term:**         Medium
- Scope:**        This project aligns to the principles of legal compliance and leading by example. One of the outcomes of the NBSAP is that effective waste management and pollution control will limit the impacts of pollution on biodiversity.  
  
The Municipality's existing waste disposal sites are not licensed, and are visible contributors to the destruction of biodiversity. The Municipality is planning the closure of the Velddrif waste disposal site, but needs to ensure that it rolls this initiative out to all the other unlicensed sites in the Municipal area. The Piketberg site is the most critical site as it is situated on a tributary that flows indirectly into the Berg River.
- Funding:**      BM will have to provide own funding. This is a medium term project and alternative

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funding sources may be identified with the revision of the LBSAP

**Support:** DEADP and WCDM can provide technical advice and support

**STRATEGY 6:**

**ENGAGE ACTIVELY AND IMPLEMENT MEASURES TO FACILITATE PRIVATE  
CONSERVATION OF BERGRIVIERS BIODIVERSITY**

**Project:** **Revise the rates policy of the Municipality to encourage the conservation of biodiversity by private land owners**

**Outcomes:** Enhanced conservation status of critical biodiversity and ecological support areas in private ownership

**Term:** Medium and ongoing

**Scope:** This project aligns to the principle of making optimal use of available resources and opportunities. The priority analysis revealed that there is little terrestrial biodiversity remaining in the municipal area and that the majority of it is on private land. This project entails the application of differential property rates to encourage private land owners to conserve their biodiversity.

The Local Government Municipal Property Rates Act requires the Municipality to adopt a rates policy which must be reviewed on an annual basis. Such a policy must determine the criteria to be applied by the Municipality to levy different rates on different categories of property or grant rebates or reductions to specific categories of owners or owners of specific categories of property. Categories of property for which differential rates can be applied include protected areas and the Municipality can also determine its own categories based on the use of the property. (Conservation, under stewardship etc)

**Funding:** The Municipality will be able to undertake this project in house when it revises its rates policy

**Support:** Private land owners

**Project:** **Facilitate the conclusion of a stewardship agreement with the Moravian Church / Goedverwacht Community to care for the Platkloof River and its surrounds**

**Outcomes:** Conservation of critical terrestrial and aquatic biodiversity local economic development and job creation.

**Term:** Medium

**Scope:** This project aligns to the principles of promoting socio economic development and

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making optimal use of available resources and opportunities.

Goedverwacht is a private town owned by the Moravian Church of South Africa and the Municipality only provides limited services to the area. Goedverwacht has high poverty and unemployment levels and is in dire need of economic development. It is situated within a terrestrial critical biodiversity area and is also traversed by the Platklouf River which is a breeding area for indigenous fish and an aquatic critical biodiversity area. It has immense untapped eco and cultural tourism potential that could be exploited to the benefit of the local community.

The project entails the facilitation of a stewardship agreement between Cape Nature and the Moravian Church /Goedverwacht Community to conserve the Platklouf River and its surrounds, which will in turn create employment opportunities and promote tourism.

**Funding:** The Cape Nature Stewardship Programme and SANBI, local industries and businesses

**Support:** DEADP, DWAF, WCDM, Working for Water and Working for Wetlands, City of Cape Town

**STRATEGY 7:**

**CLEAN AND GREEN URBAN AREAS TO PROMOTE BIODIVERSITY**

**Project:** Botanical garden

**Outcomes:** Skills development, education, awareness, job creation and entrepreneurship opportunities

**Term:** Medium

**Scope:** This project aligns to the principle of promoting socio economic development and making optimal use of available resources and opportunities.

This is a project that is already in the planning stage by the Municipality. It entails the development of a botanical garden in cooperation with the Piketberg Forum. The garden will be developed next to the historical cemetery in Piketberg. The garden will be multifunctional and will primarily be aimed at showcasing indigenous and endemic plants, their cultural and historical origins, medicinal use, importance to biodiversity and their application in landscape design. The garden will also include an appropriate space for small scale markets, concerts, art exhibitions and other events.

The development of the garden will create some job opportunities and facilitate the establishment of local enterprises such as a nursery where plants are propagated and

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sold, guided tours and a tea garden /kiosk that can be operated during functions and events.

**Funding:** This is a medium term project and funding sources will be identified with the revision of the LBSAP

**Support:** Cape Nature, DEAT, DEADP, WCDM, LAB, City of Cape Town, SANBI, local business and industry and the Piketberg Forum

**Project:** **Adopt a street tree campaign**

**Outcomes:** Improved air quality, local economic development and promotion of urban biodiversity

**Term:** Medium and ongoing

**Scope:** This project aligns to the principle of promoting socio economic development by making urban areas more attractive to development.

The Municipality is actively planting street trees in streets where there are no trees. There are however a lot of streets that were planted many years ago where trees have died, or where trees were never planted. It is impractical for the Municipality to fill these gaps because of their limited personnel and the haphazard way in which maintenance, particularly watering would have to be done. This project entails encouraging residents to take over the responsibility of looking after the street trees in front of their houses. Where there are no trees, the Municipality could provide residents with trees of a predetermined indigenous non invasive species to plant or plant them for the resident and then allow the resident to take over the care of them. This initiative could be promoted through the Municipality's newsletter or the website and can be included in the awareness programme that will also be proposed in this LBSAP. This could be implemented as an ongoing initiative subject to the availability of trees.

**Funding:** DWAF could be approached to donate trees, alternatively BM will have to provide own funding. This is a medium term project and alternative funding sources may be identified with the revision of the LBSAP

**Support:** DWAF and the Community

**Project:** **Garden competition**

**Outcomes:** Promotion of urban biodiversity, food security and community involvement in conserving and promoting urban biodiversity

**Term:** Long term

**Scope:** This project aligns to the principle of promoting socio economic development by

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encouraging residents to implement measures on their own properties that will make urban areas more attractive and conducive to development. It can also contribute to the alleviation of poverty through the promotion of food security.

The project entails an annual garden competition that rewards and gives recognition to residents who promote biodiversity and conserve their environment. The competition must be structured in such a way that it is open and available to all residents. This could be done by creating categories based on size, area and use (ornamental /food gardens) of the garden.

The criteria used to judge gardens must be based on the environmental sustainability and conservation and the promotion of biodiversity and should include criteria such as; choice of plants (indigenous and water wise), other innovations to make gardens water wise, organic gardening practices, conduciveness of the design to the promotion of biodiversity, use of recycled material and contribution to food security etc.

Prizes should encourage residents to build on what they have already achieved and include items such as plants, garden implements, worm farms, water tanks etc.

**Funding:** The private sector could be approached to sponsor prizes. This is a long term project and alternative funding sources may be identified with the revision of the LBSAP

**Support:** Community organisations could be involved in the judging process.

4.4.3.3 OBJECTIVE 3: COMMUNITY APPRECIATION AND ACTIVE PARTICIPATION IN  
THE CONSERVATION OF BERGRIVIER MUNICIPALITY'S BIODIVERSITY

STRATEGY 8:

CREATE AN AWARENESS OF THE IMPORTANCE OF CONSERVING BIODIVERSITY  
THROUGH TARGETED AWARENESS PROGRAMMES

**Project:** Develop and implement an annual biodiversity awareness programme

**Outcomes:** The community understand what biodiversity is, why it is important, and are mobilised to conserve it.

**Term:** Short and ongoing

**Scope:** This project aligns to the principle of addressing broader environment issues that relate directly to the conservation of biodiversity and is also cross cutting. This project aims to instil an awareness of the importance of conserving biodiversity and teach the community how they can conserve it individually and in cooperation with one another.

A common problem with awareness campaigns is that they target one issue, are short lived and the message is soon forgotten. This project entails the development of an annual programme that will ensure continuous awareness. The programme should have a broad focus and acknowledge the interrelatedness between biodiversity and broader environmental issues. It could include issues such as;

- Rights and responsibilities in relation to the environment
- Preservation of ecosystems
- Water conservation
- Water pollution
- Air pollution
- Recycling
- Littering and dumping
- Water wise gardening
- Invasive species
- Fire hazards
- Safe disposal of hazardous waste
- Reducing ecological foot prints and green living practices

The awareness programme must make use of a variety of different activities which can be aligned to the national environmental calendar such as arbour day etc. Activities can include;



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- Community workshops in rural and urban areas on pertinent topics
- Youth programmes
- Community projects whereby the community dedicate a day to work on a biodiversity related project e.g. clearing the wetland area bordering on the N7
- Participation in national and provincial campaigns and activities eg National Water Week
- Skills development

The Municipality must also ensure that relevant information is readily available. This can be done through;

- Residents brochures
- The Municipality's web site
- Posters
- Newsletters

**Funding:** BM will have to provide own funding and tap into available programmes of other Departments such as DWAF, DEADP, DEAT etc.

**Support:** All government departments who have environmental programmes can be approached for promotional material. The private sector could also be approached to initiate, fund, support and participate in activities.

**4.4.3.4 OBJECTIVE 4: ENHANCED HUMAN WELL BEING AND POVERTY REDUCTION THROUGH THE MAINSTREAMING OF BIODIVERSITY CONSERVATION INTO THE LOCAL ECONOMY**

**STRATEGY 9:**

**FACILITATE INTERNATIONAL CONSERVATION STATUS FOR THE BERG ESTUARY THROUGH ACTIVE PARTICIPATION ON THE BEMF**

**Project:** Actively participate in the activities of the BEMF and fulfil the municipality's role in the management, conservation and sustainable development of the Berg Estuary

**Outcomes:** Local economic development including the development of the tourism sector, job creation and entrepreneurship, conservation and sustainable development of the Estuary.

**Term:** Short

**Scope:** This project aligns to the principle of promoting social and economic development. The Berg Estuary is undoubtedly the issue that stakeholders felt was the most important project of the LBSAP.

The Berg Estuary is the Municipality's most important biodiversity asset and a significant economic asset. RAMSAR status will enhance its economic potential which will directly benefit BM. As it is BM that stands to gain the most benefit from this status it is appropriate that it play a leading role in the management, conservation and sustainable development of the Estuary.

As indicated in the priority analysis, management of the Berg Estuary is not the prerogative of a single organ of state, but rather the combined efforts of multiple organs of state and the community. Management of the Estuary is currently done through the BEMF which is a multi stakeholder forum, established in line with the ICM to manage the Estuary. BM is currently a member of the BEMF but needs to enhance, develop and fulfil its role within the parameters of the Integrated Coastal Management Act and its powers and functions.

This is a multifaceted project requiring the Municipality to commit to;

- Facilitate the conclusion of an agreement and undertake all municipal functions assigned to it by agreement with the WDCM in terms of the ICM Act. This may include the promulgation of by-laws and the regulation of the recreational use of Estuary, particularly boats, windsurfers etc which are having a detrimental effect on bird life, management of coastal access land and awareness initiatives.
- Actively participate in the BEMF; The Municipality needs to appoint a dedicated

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official /officials (including the proposed environmental manager /officer) to consecutively represent them on the BEMF. One official needs to be a senior official who has the authority to ensure that resolutions of the BEMF are executed or put through the correct channels within the Municipality to ensure execution.

- Support the BEMF to achieve its objectives (financially and otherwise)
- Undertake its planning in a way that promotes the conservation, development and sustainable use of the Estuary
- The development and implementation of a strategy to the economic potential of the Estuary to benefit the local community. This should include the promotion of the tourism potential of the Estuary, job creation initiatives and the promotion of local entrepreneurship. (This strategy must align to the LED Strategy of the Municipality)

**Funding:** BM will have to provide own funding to support the BEMF and may also have to provide own funding to undertake the roles and responsibilities assigned to by WCDM in terms of the ICM Act. The Department of Economic Development and Tourism can be approached to fund job creation and entrepreneurship initiatives and the promotion of tourism.

**Support:** BEMF (Multi stakeholder forum comprising all relevant organs of state and the community)

**STRATEGY 10:  
MAINSTREAM BIODIVERSITY CONSERVATION INTO LOCAL ECONOMIC  
DEVELOPMENT**

**Project::** Roll out of urban waste recycling project to all urban areas of the Municipality

**Outcomes:** Job creation and a reduction of the impact of waste and pollution on biodiversity

**Term:** Medium and ongoing

**Scope:** The project aligns to the principle of promoting socio economic development. The Municipality is currently busy with a pilot study in Piketberg to determine its levels of recyclable waste and plans to appoint a contractor to undertake recycling in the near future. The Municipality needs to roll this out to other urban areas of the Municipality in a manner that promotes local entrepreneurship and local employment opportunities.

**Funding:** Such a project should ideally not cost the Municipality anything

**Support:** DEADP, WCDM and the Department of Economic Development and Tourism

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- Project:** Coastal cleaning and beautification<sup>4</sup>
- Outcomes:** Local economic development including the development of the tourism sector, job creation and entrepreneurship.
- Term:** Medium
- Scope:** This project aligns to the principle of promoting socio economic development. Enhanced conservation status of the Berg Estuary (RAMSAR) will mean the establishment and maintenance of a certain standards for the coastal area. High standards such as blue flag status for beaches etc will promote local economic development especially tourism. The upgrading of coastal areas can be very labour intensive and must be seen as a valuable job creation opportunity. This project entails continuous cleaning, beautification of the coastal area using labour intensive initiatives. The project can include the building of footpaths and boardwalks, construction of benches, eradication of aliens, rehabilitation of dunes, picking up litter, construction of bird watching facilities etc.
- Funding:** Working for the Coast is in need of proposals for labour intensive projects that will endure for 3 years and cost more than R2,5 Million
- Support:** BEMF, WCDM and the community
- 
- Project:** Clean Porterville stream
- Outcomes:** Job creation, an attractive environment conducive to economic development, conservation of aquatic biodiversity
- Term:** Medium and ongoing
- Scope:** This project aligns to the principle of promoting socio economic development by making the urban environment of Porterville more attractive and conducive to development. There are two streams running through Porterville. The northern stream has been artificially channelled in places and does not always have water in it. The stream becomes polluted through littering and there is also a presence of alien invasive vegetation. The stream runs through a number of tributaries before running into the Berg River and is currently a source of water pollution. This is a small scale project that would entail the annual clearing of this stream of litter and invasive alien vegetation using local labour from the local community.
- Funding:** EPWP or own funding
- Support:** Working for Water can provide herbicides and skills training.

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<sup>4</sup> This project is subject to the provisions of an agreement to be reached between WCDM and BM on the division of roles and responsibilities in terms of the ICM Act.

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- Project:** Composting project
- Outcomes:** Local economic development including job creation and entrepreneurship.
- Term:** Long
- Scope:** The project aligns to the principle of promoting socio economic development and capitalises on the economic benefits of waste. It could be undertaken as part of the urban waste recycling project or a stand alone project. It entails the establishment of a new sites or the adaptation of the existing waste transfer sites to accommodate organic waste which can be converted into compost and sold to the public as part of a job creation / entrepreneurial project.
- Funding:** This is a long term project and funding sources will be identified with the revision of the LBSAP
- Support:** DEADP, WCDM, Department of Economic Development and Tourism, local business and the community

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**Table 3: Summary of objectives, strategies and projects**

Objectives	Strategies	Projects		
		Short term projects	Medium term projects	Long term projects
1. Full integration of biodiversity conservation into the institutional and planning frameworks, governance and regulatory processes and policies of Bergrivier Municipality	1. Develop the capacity of Bergrivier Municipality to effectively manage its biodiversity and broader environmental issues	Create a position for an environmental manager /officer in the office of the municipal manager and fill the position with a suitable incumbent.	-	Repeat Biodiversity training and induction programme for Councillors, officials and ward committee members
		Biodiversity training and induction programme for Councillors, officials and ward committee members	-	-
	2. Integrate biodiversity considerations into municipal planning, policies and by-laws	-	Develop and implement a policy to guide development within critical biodiversity, critical ecological support and other natural areas	Develop a uniform LUMS for the Bergrivier Municipality
		-	Rezone municipal critical biodiversity and critical ecological support areas	-
		-	Develop and implement an urban greening policy / By-law	-

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Objectives	Strategies	Projects		
		Short term projects	Medium term projects	Long term projects
2. Management, conservation and sustainable utilisation of Bergrivier Municipality's aquatic and terrestrial biodiversity assets	3. Eradicate alien and invasive species that are impacting negatively on Bergrivier Municipality's biodiversity	-	Develop and implement a green procurement policy	-
		-	Develop and implement an Air Quality By-law	-
		-	Revision of the SDF	-
	4. Conserve freshwater aquatic ecosystems through sustainable use and management of water resources	Development and implementation of an Invasive Species Monitoring, Control and Eradication Plan	Ongoing implementation of the Invasive Species Monitoring, Control and Eradication Plan	Ongoing implementation of the Invasive Species Monitoring, Control and Eradication Plan
		-	Urban rain water harvesting	Urban rain water harvesting continued
5. Reduce the impact of waste and pollution on biodiversity	-	Develop a water pollution risk reduction plan	-	
		-	Closure and rehabilitation of all unlicensed solid waste disposal sites	-

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Objectives	Strategies	Projects		
		Short term projects	Medium term projects	Long term projects
6. Engage actively and implement measures to facilitate private conservation of Bergrivier's biodiversity		Revise the rates policy of the Municipality to encourage the conservation of biodiversity by private land owners	Ongoing revision of the Municipality's rates policy to encourage the conservation of biodiversity by private land owners	Ongoing revision of the Municipality's rates policy to encourage the conservation of biodiversity by private land owners
		-	Facilitate the conclusion of a stewardship agreement with the Moravian Church / Goedverwacht Community to care for the Platkloof River and its surrounds	-
7. Clean and green urban areas to promote biodiversity		Piketberg Botanical Garden	Adopt a street tree campaign	Ongoing adopt a street tree campaign
		-	-	Garden competition
3. Community appreciation and active participation in the conservation of Bergrivier Municipality's biodiversity	8. Create an awareness of the importance of conserving biodiversity through targeted awareness programmes	Develop and implement an annual awareness programme	Ongoing annual awareness programme	Ongoing annual awareness programme



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Objectives	Strategies	Projects		
		Short term projects	Medium term projects	Long term projects
4. Enhanced human well being and poverty reduction through the mainstreaming of biodiversity conservation into the local economy	9. Facilitate international conservation status for the Berg Estuary through active participation on the BEMF	Actively participate in the activities of the BEMF and fulfil the municipality's role in the management, conservation and sustainable development of the Berg Estuary	Ongoing	Ongoing
		-	Roll out of urban waste recycling project to all urban areas of the Municipality	Ongoing roll out of urban waste recycling project to all urban areas of the Municipality
		-	Coastal cleaning and beautification	Compost making project
	10. Link biodiversity conservation to job creation and entrepreneurship	-	Clean Porterville stream	-

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**4.5 IMPLEMENTATION PLAN**

The LAB LBSAP guidelines require the Municipality to select a minimum of three projects for the first three years of its participation in the LAB Programme. BM has selected the following five projects;

1. Create a position for an environmental manager / officer in the office of the municipal manager and fill the position with a suitable incumbent
2. Biodiversity training and induction programme for Councillors, officials and ward committee members
3. Development of an Invasive Species Monitoring, Control and Eradication Plan
4. Actively participate in the activities of the BEMF and fulfil the municipality's role in the management, conservation development and sustainable use of the Berg Estuary
5. Develop and implement an annual awareness programme

The implementation plan for the above projects is set out in the table below;

**BERGRIVIER MUNICIPALITY LOCAL BIODIVERSITY STRATEGIES AND ACTION PLAN  
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**Table 4: Implementation plan**

Full integration of biodiversity conservation into the institutional and planning frameworks, governance and regulatory processes and policies of Bergrivier Municipality											
Objective	Strategy	Project	Outcomes	Key activities	Resources			Roles and responsibilities		Financial year	Locality (Ward /Area)
					Funding	Funding source	Other resources	Responsible Directorate	Support		
Develop the capacity of Bergrivier Municipality to effectively manage its biodiversity and broader environmental issues		Create a position for an environmental manager / officer in the office of the Municipal Manager and fill the position with a suitable incumbent.	Co-ordinated management of biodiversity and broader environmental issues Dedicated in house environmental expertise, Consecutive representation at meetings and forums Optimal utilisation of available partnerships and	Job description Amend staff structure Recruitment and selection	R457155 PA (Level 3)	Own funds	Office equipment	Corporate Services	WCDM DEADP DEAT	2011/12	-

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	Biodiversity training and induction programme for councillors, officials and ward committee members	opportunities. Common and holistic understanding of biodiversity Practical application of biodiversity conservation in own environment.	Approach SANBI to provide training /appoint service provider Develop induction programme with Cape Nature	R190000 /SANBI may provide training free of charge	Own funds /SANBI Municipal Support Programme	-	Corporate Services	SANBI Cape Nature	2011/12	-				

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Management, conservation and sustainable utilisation of Bergrivier Municipality's aquatic and terrestrial biodiversity assets											
Objective	Strategy	Project	Outcomes	Key activities	Resources			Roles and responsibilities		Financial year	Locality (Ward /Area)
					Funding	Funding source	Other resources	Responsible Directorate	Support		
Eradicate alien and invasive species that are impacting negatively on Bergrivier Municipality's biodiversity	Development and implementation of an Invasive Species Monitoring, Control and Eradication Plan	Job creation and restored integrity of aquatic and terrestrial ecosystems	Develop TOR Procurement of a service provider Implement phase 1	R250000 (Plan development) Implementation costs of phases 1 & 2 subject to plan	Plan: own funding /SANBI Municipal Support Programme Implementation: Working for Water /Wetlands/Coast /Land Care	Herbicides Skills training Transport Machinery	Municipal Manager (Plan) Technical Services (Implementation)	DEADP SANBI Cape Nature Working for Water Working for Wetlands Working for the Coast Land Care	Plan 2012/13 Phase 1: 2013/14	To be determined by Plan	

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Community appreciation and active participation in the conservation of Bergrivier Municipality's biodiversity											
Objective	Strategy	Project	Outcomes	Key activities	Resources			Roles and responsibilities		Financial year	Locality (Ward /Area)
					Funding	Funding source	Other resources	Responsible Directorate	Support		
Create an awareness of the importance of conserving biodiversity through targeted awareness programmes	Develop and implement an annual awareness programme	The community understand what biodiversity is, why it is important, and are mobilised to conserve it	Plan Programme Liaise with all applicable government Departments Implement programme	R150000 PA	Own funds Promotional material from relevant Government Departments	Promotional material	Programme – Municipal Manager Responsibility for aspects of programme may be assigned to other Directorates	DEADP DEAT DWAF Department of Agriculture SANBI Cape Nature	2012/13 and 2013/14	All	

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Enhanced human well being and poverty reduction through the mainstreaming of biodiversity conservation into the local economy											
Objective	Strategy	Project	Outcomes	Key activities	Resources			Roles and responsibilities		Financial year	Locality (Ward /Area)
					Funding	Funding source	Other resources	Responsible Directorate	Support		
Facilitate international conservation status for the Berg Estuary through active participation on the BEMF	Actively participate in the activities of the BEMF and fulfil the municipality's role in the management, conservation and sustainable development of the Berg Estuary.	Local economic development including the development of the tourism sector, job creation and entrepreneurship, conservation and sustainable development of the Estuary.	Appoint appropriate representatives to BEMF Conclude agreement with WCDM in terms of ICM Act* Develop Strategy to develop local economic development potential of Estuary	R250 000 PA **	Own funding	-	Municipal Manager	All BM Directorates BEMF	2011/12 2012/13 2013/14	Velddrif	

\*This agreement will inform final scope, funding and resources required for project

\*\* Funding subject to finalisation of role on BEMF

## **5 REVIEW, MONITORING AND EVALUATION OF THE LBSAP**

The LBSAP will be included in the IDP of the Municipality as a sector plan. Its inclusion will facilitate an annual review when the IDP is reviewed.

The implementation of the LBSAP will be monitored and evaluated on a regular basis to ensure that the objectives are being achieved. The Municipality has a performance management system in place which makes use of Service Delivery Budget Implementation Plans (SDBIP's) as a tool to measure the performance of its senior management. Each LBSAP project will be assigned to a senior manager and included in his or her SDBIP. SDBIP's are reviewed by the Municipal Council on a quarterly basis.

The table below sets out the monitoring and evaluation plan for each project.



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*Table 5: Monitoring and evaluation plan*

Full integration of biodiversity conservation into the institutional and planning frameworks, governance and regulatory processes and policies of Bergrivier Municipality																						
Objective	Strategy	Project	Nat KPI	TAS	IDP	BM KPA	KPI	KPI Measure	Year 1 Target				Year 2 Target				Year 3 Target					
									1	2	3	4	1	2	3	4	1	2	3	4		
Develop the capacity of Bergrivier Municipality to effectively manage its biodiversity and broader environmental issues		Create a position for an environmental manager /officer in the office of the Municipal Manager and fill the position with a suitable incumbent.	Municipal Transformation and Institutional Development	Governance	Accountable and transparent governance	Good governance	Responsibility assigned for Environmental and biodiversity management	Official appointed														
									100%													
		Biodiversity training and induction programme for councillors, officials and ward committee members	Municipal Transformation and	Governance (G)	Accountable and transparent	Good governance	Skills development of Councillors, Senior officials, LED officials and ward committees	% of designated officials, councillors and ward committees members trained		50%												

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Objective	Management, conservation and sustainable utilisation of Bergrivier Municipality's aquatic and terrestrial biodiversity assets																			
	Strategy	Project	Nat KPI	TAS	IDP	BM KPA	KPI	KPI Measure	Year 1 Target				Year 2 Target				Year 3 Target			
									1	2	3	4	1	2	3	4	1	2	3	4
Eradicate alien and invasive species that are impacting negatively on Bergrivier Municipality's biodiversity	Development of an Invasive Species Monitoring, Control and Eradication Plan	LED	LED	LED	Safe, Healthy and Secure Environment	Extent of alien eradication and jobs created	% Completion of plan							100%			40%	60%	80%	100%



**BERGRIVIER MUNICIPALITY LOCAL BIODIVERSITY STRATEGIES AND ACTION PLAN  
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Objective Strategy	Enhance human well being and poverty reduction through the mainstreaming of biodiversity conservation into the local economy																				
	Project	Nat KPI	TAS	IDP	BM KPA	KPI	KPI Measure	Year 1 Target			Year 2 Target			Year 3 Target							
								1	2	3	4	1	2	3	4	1	2	3	4		
Facilitate international conservation status for the Berg Estuary	Actively participate in the activities of the BEMF and fulfil the municipality's role in the management, conservation development and sustainable use of the Berg Estuary	LED	LED	LED	Safe, Healthy and Secure Environment	Defined roles and responsibilities assigned by WCDEM in terms of ICM Act* Level of participation and fulfilment of role on BEMF Job creation and entrepreneurship	Performance of functions assigned by WCDEM Attendance of forum meetings Estuary economic development strategy adopted and % of phase 1 implemented	Agreement	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
								50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

\*This agreement will inform final monitoring and evaluation framework for project

## 6 LEGISLATIVE AND POLICY FRAMEWORK

The Bergrivier Biodiversity Report (2010) dealt effectively with applicable legislation and policy and it is not our intention to duplicate this exercise, but rather to highlight specific provisions that informed the development of the LBSAP

### 6.1 THE REPUBLIC OF SOUTH AFRICA CONSTITUTION ACT (ACT 108 OF 1996)

The Constitution defines an organ of state as being “any department of state or administration in the national, provincial or local sphere of government. Obligations of the state therefore apply to the Municipality unless specifically precluded. The state is obliged to protect, promote and fulfil the rights contained in the Bill of Rights. One of these rights is the environmental right which provides that;

“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 generations through reasonable legislative and other measures that;

(i) prevent pollution and ecological degradation

(ii) promote conservation

(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development”<sup>5</sup>.

Chapter 3 sets out principles of cooperative governance that must be adhered to by all spheres of government. Cooperative governance is of particular significance to this project because the environment function and other closely related functions which are inextricably linked to biodiversity conservation do not fall within the functional competency of the Municipality.

Chapter 7 regulates the local sphere of government and sets out the objectives that the Municipality must strive to achieve namely;

- ✦ Provision of democratic and accountable government for local communities
- ✦ Ensuring the provision of services to communities in a sustainable manner
- ✦ Promoting social and economic development
- ✦ Promoting a safe and healthy environment
- ✦ Encouraging the involvement of communities and community organisations in the matters of local government.

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<sup>5</sup> Republic of South Africa Constitution Act, Act 108 of 1996: (24)

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Parts B of Schedules 4 and 5 set out the functions of municipalities. Many of BM's functions depend on ecosystem services, while others impact on the environment.

### 6.2 INTERNATIONAL LEGISLATION

South Africa is a party to the following conventions, and bound by the obligations contained therein.

#### 6.2.1 CONVENTION ON BIODIVERSITY (CBD)

South Africa ratified the Convention on Biological Diversity (CBD) in 1995. The objectives of the Convention are to;

- ✦ Conserve biological diversity
- ✦ Use components of biological diversity in a sustainable manner
- ✦ Share the benefits arising out of the utilization of genetic resources in a fair and equitable manner.

Article 6 sets out general measures that parties are required to implement to ensure the conservation and sustainable utilisation of their biodiversity. These measures include;

- ✦ The development of national strategies, plans or programmes for the conservation and sustainable use of biological diversity or the adaptation of existing strategies, plans or programmes to comply with the requirements of the Convention
- ✦ Integrating the conservation and sustainable use of biological diversity into relevant sector and cross-sector plans, programmes and policies.

Article 7 requires parties to the CBD to;

- ✦ Identify and monitor components of biodiversity in their territories that need to be conserved and used sustainably
- ✦ Identify processes and categories of activities which may impact adversely on the conservation and sustainable use of biodiversity and implement mechanisms to monitor these impacts
- ✦ Maintain and manage data relating to the above.

Article 13 requires parties to the CBD to implement public awareness and education on the conservation and sustainable use of biological diversity and to cooperate with other states and international organizations to develop educational and public awareness programmes.

South Africa has given effect to its obligations in terms of the CBD through the following;

- ✦ National Environmental Management: Biodiversity Act (Act 10 of 2004)
- ✦ National Biodiversity Strategic Action Plan (NBSAP)
- ✦ National Spatial Biodiversity Assessment (NSBA)

### **6.2.2 CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)**

South Africa ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in July 1975. The objective of this Convention is to regulate the trade of specimens of species that;

- Are threatened with extinction and which may be affected by trade
- Are not currently threatened with extinction but which may become extinct unless trade of these specimens is strictly regulated to avoid utilization levels that are incompatible to their survival
- Any party considers necessary to regulate within its own jurisdiction and which requires the co-operation of the other parties to the Convention.

South Africa has given effect to its obligations in terms of CITES through the National Environmental Management: Biodiversity Act (Act 10 of 2004).

### **6.2.3 CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE ESPECIALLY AS WATERFOWL HABITAT (RAMSAR CONVENTION)**

South Africa ratified the Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention) in 1975. Article 2 requires contracting parties to designate suitable wetlands within their territory for inclusion in a “List of Wetlands of International Importance”. Wetlands must be selected on the basis of their international significance in terms of ecology, botany, zoology, limnology or hydrology. The list is open and parties can add to the list at any time. Article 3 places a general obligation on contracting parties to promote the conservation of wetlands and waterfowl by establishing nature reserves on wetlands and doing their planning in a way that promotes the conservation of wetlands irrespective of whether they are listed or not. The Verlorenvlei is a listed wetland falling predominantly within the Cederberg Municipality, but the upper reaches and some tributaries fall within BM. Municipal planning must take cognisance of potential impacts on this sensitive area. This LBSAP also proposes that the Municipality actively support the listing of the Berg Estuary as a RAMSAR site.

South Africa has given effect to its obligations in terms of RAMSAR through the National Environmental Management: Protected Areas Act (Act 57 of 2003)

### **6.2.4 CONVENTION ON MIGRATORY SPECIES OF WILD ANIMALS (BONN CONVENTION)**

South Africa ratified the Convention on Migratory Species of Wild Animals (Bonn Convention) in 1991. The fundamental principle of the Convention is that parties must conserve migratory species and their

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habitats either individually or in cooperation with one another. South Africa is a signatory to the following supplementary agreements and memoranda of understanding

- Agreement on the conservation of African- Eurasian migratory water birds (1999)
- Agreement on the conservation of albatrosses and petrels (2004)
- Memorandum of understanding on the conservation of marine turtles and their habitats of the Indian Ocean and South East Asia (2001)
- Memorandum of understanding on the conservation of migratory birds of prey in Africa and Eurasia (2008)

South Africa has given effect to its obligations in terms of the BONN Convention through the Environmental Management: Biodiversity Act (Act 10 of 2004)

### **6.2.5 CONVENTION TO COMBAT DESERTIFICATION**

South Africa ratified the Convention to Combat Desertification in 1995. The objective of the Convention is to combat desertification and mitigate the effects of drought in countries experiencing serious drought and/or desertification, especially Africa. The Convention requires an integrated sustainable development approach that focuses simultaneously on improving the productivity of land as well as the rehabilitation, conservation and sustainable management of land and water resources, which will in turn lead to improved living conditions for communities.

### **6.2.6 UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE**

South Africa ratified the Framework Convention on Climate Change in 1997. The Convention provides a framework to encourage intergovernmental efforts to address the challenges of climate change, specifically the destructive effect of emissions of carbon dioxide and other greenhouse gases. Parties to the Convention are required to;

- Collect and share information on greenhouse gas emissions, national policies and best practices
- Develop national strategies for addressing greenhouse gas emissions and adaptation to the expected impacts, including the provision of financial and technological support to developing countries
- Cooperate in preparing for adaptation to the impacts of climate change

The Kyoto Protocol is linked to the United Nations Framework Convention on Climate Change and sets binding targets for industrialized countries and the European Community to reduce greenhouse gasses and emissions. South Africa ratified the Kyoto Protocol in 2002.



### 6.3 NATIONAL LEGISLATION

The National legislation applicable to the LBSAP is divided into municipal legislation, environmental legislation and other legislation impacting on the environment.

#### 6.3.1 MUNICIPAL LEGISLATION

##### 6.3.1.1 MUNICIPAL STRUCTURES ACT (ACT 117 OF 1998)

The Municipal Structures Act regulates the establishment of municipalities and the division of powers and functions between local and district municipalities. Section 84(2) provides that a local municipality has all the functions and powers assigned to it in terms of the Constitution excluding those assigned to the district municipality with whom it shares a jurisdiction. Section 84(3) (a) makes provision for the adjustment of functions and powers between municipalities. BM is responsible /partially responsible for the following functions within its area of jurisdiction that relate to the environment;

*Table 6: BM functions that relate to the environment*

- Air pollution
- Local tourism
- Municipal planning
- Pontoons, ferries, jetties, piers and harbours excluding national and international shipping and matters related thereto
- Storm water management systems in built up areas
- Beaches
- Cleansing
- Local amenities
- Municipal parks and recreation
- Noise pollution
- Public places
- Refuse and solid waste removal
- Solid waste disposal sites
- Water and sanitation services (potable water supply systems and domestic waste-water and sewerage disposal systems)
- Fire fighting services (buildings only)

### **6.3.1.2 MUNICIPAL SYSTEMS ACT (ACT 32 OF 2000)**

Chapter 5 of the Municipal Systems Act and the Local Government: Municipal Planning and Performance Regulations (2001) collectively regulate Integrated Development Planning (IDP). The Municipality is required to develop an IDP in consultation with the community which must;

- Link, integrate and co-ordinate all plans and proposals for the development of the Municipality
- Align the resources and capacity of the Municipality to implement the plan
- Establish a policy framework and general basis on which the annual budget is based
- Align with national and provincial development plans and planning requirements applicable to municipalities<sup>6</sup>

The Municipal IDP must reflect;

- Development priorities and objectives including local economic development objectives.
- Development strategies which must be aligned to national and provincial sector plans and planning requirements
- A spatial development framework which must include a strategic assessment of the environmental impact of the framework
- Disaster management plans
- Key performance indicators and targets<sup>7</sup>

Chapter 6 regulates municipal performance management and must be read in conjunction with the Local Government: Municipal Planning and Performance Regulations (2001). The Municipality is required to develop a performance management system that aligns with the priorities, objectives, indicators and targets as contained in the IDP.

The implication of these chapters is that the LBSAP must align to and be reflected in the IDP and performance management system of the Municipality.

## **6.3.2 ENVIRONMENTAL LEGISLATION**

### **6.3.2.1 NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)**

The National Environmental Management Act (NEMA) aims to ensure cooperative governance on environmental matters. Chapter 1(2) sets out the following environmental principles that must be adhered to by the Municipality:

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<sup>6</sup> Local Government Municipal Systems Act; 32 of 2000: (25)(1)

<sup>7</sup> Local Government Municipal Systems Act; 32 of 2000: (25)(1) read with Regulation (4)(f) of the Local Government: Municipal Planning and Performance Regulations; 2001

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2. "Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
3. Development must be socially, environmentally and economically sustainable
4. Sustainable development requires the consideration of all relevant factors including the following:
  - a) that the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
    - (i) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
    - (ii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
    - (iii) that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;
    - (iv) that the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource;
    - (v) that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised;
    - (vi) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and
    - (vii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.
  - b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.
  - c) Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.

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- d) Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.
- e) Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.
- f) The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.
- g) Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge.
- h) Community wellbeing and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means.
- i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.
- j) The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.
- k) Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.
- l) There must be intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.
- m) Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.
- n) Global and international responsibilities relating to the environment must be discharged in the national interest
- o) The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people's common heritage."

Chapter 3 regulates the development of Environmental Implementation Plans (EIP's) by national and provincial departments. Municipalities must align their policies, programmes and integrated development plan with national and provincial EIP's and the NEMA principles<sup>8</sup>.

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<sup>8</sup> National Environmental Management Act, 107 of 1998: (16)(4)(b)

Chapter 5 regulates integrated environmental management and must be read in conjunction with the Environmental Impact Assessment Regulations published under Government Notices R 385, No. 386, and No. R 387) (2006). Although the Municipality does not make decisions in respect of NEMA applications, they are an integral part of the decision making process and must make full use of opportunities to ensure that activities within their area of jurisdiction do not have a detrimental impact on biodiversity and the broader environment.

### **6.3.2.2 NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS ACT (ACT 57 OF 2003)**

The Protected Areas Act must be read in conjunction with NEMA and the Biodiversity Act. It aims to protect, conserve and manage areas of ecological value in accordance with national norms and standards. It also provides for intergovernmental co-operation and public consultation on matters relating to protected areas.

Chapter 3 regulates the declaration of protected areas as special nature reserves, nature reserves or protected environments. Nature reserves and protected environments managed by municipalities are known as local protected areas. The Act protects sensitive areas from inappropriate development and also enables private land owners to individually or cooperatively conserve biodiversity on their own land in a legally recognised manner. Protected area declarations can be initiated by the Minister of Environmental Affairs or MEC of the Province in which the land is situated or an individual land owner or a group of land owners collectively<sup>9</sup>. Such a declaration is recorded against the title deed of the property and binds successors in title to the property.

Chapter 4 regulates the management of protected areas and provides that the Minister /MEC may assign the management of a special nature reserves / nature reserves to suitable persons, organizations or organs of state. The MEC may also assign the management of a protected area to suitable persons, organizations or organs of state. Management authorities must develop a management plan in consultation with relevant stakeholders and submit it to the Minister /MEC for approval. The purpose of the management plan is to ensure the protection, conservation and management of the area. The Act also makes provision for the co-management of protected areas whereby a management authority may enter into an agreement with an organ of state, local community, or any other party to co manage and regulate activities in a protected environment.

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<sup>9</sup> National Environmental Management Act, 107 of 1998: (35)(1)

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This significance of this Act is that the Municipality can apply to have its own critical biodiversity areas declared as protected environments and encourage private land owners to do the same. It can also cooperate with other stakeholders to manage its local protected areas.

**6.3.2.3 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT (ACT 10 OF 2004)**

The Biodiversity Act must be read in conjunction with NEMA and the Protected Areas Act. This Act regulates the management and conservation of South Africa's biodiversity, within the framework of NEMA. It also provides for the protection of species and ecosystems that warrant national protection, the sustainable use of indigenous biological resources, fair and equitable sharing of benefits arising from bio prospecting of indigenous biological resources and the establishment of the South African National Biodiversity Institute (SANBI). This Act gives effect to South Africa's obligations in terms of several international agreements, notably the CBD, Cites and RAMSAR.

Chapter 3 is the most significant to this project as it regulates biodiversity planning and monitoring. This Chapter aims to ensure integrated and co-ordinated biodiversity planning and monitoring of the conservation status of various components of our biodiversity. Part 1 makes provision for a number of biodiversity planning tools including;

- ✦ The development of a National Biodiversity Framework (NBF) to ensure an integrated, co-ordinated and uniform approach to biodiversity management by all organs of state, NGO's and other stakeholders<sup>10</sup>.
- ✦ This establishment of bioregions and development of bioregional plans by the Minister or MEC of a province<sup>11</sup>
- ✦ Biodiversity management plans for eco systems or indigenous species that are threatened or in need of protection and which can be submitted to the Minister for approval by any person, organisation or organ of state<sup>12</sup>

Part 2 provides for the coordination and alignment of biodiversity plans and requires municipalities to;

- ✦ Align their IDP's with the NBF
- ✦ Incorporate the provisions of the NBF and applicable bioregional plans into their IDP's
- ✦ Indicate how the NBF or applicable bioregional plan can be implemented by them.

Chapter 4 aims to protect ecosystems and species that are threatened and in need of conservation. The Minister or MEC may publish a national /provincial list of protected ecosystems and species under the following categories;

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<sup>10</sup> National Environmental Management: Biodiversity Act 10 of 2004: (38)

<sup>11</sup> National Environmental Management: Biodiversity Act 10 of 2004: (40-42)

<sup>12</sup> National Environmental Management: Biodiversity Act 10 of 2004: (43-46)

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- ✚ Critically endangered
- ✚ Endangered
- ✚ Vulnerable
- ✚ Protected

Municipalities are required to take into the account the need for the protection of listed ecosystems in their IDP.

Chapter 5 regulates species and organisms that pose potential threats to biodiversity, specifically alien species. Part 2 makes provision for the listing of alien species and requires municipalities to develop an Invasive Species Monitoring, Control and Eradication Plan.

**6.3.2.4 NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT 39 OF 2004)**

The Air Quality Act aims to protect the environment by providing reasonable measures for the protection and enhancement of air quality and the prevention of pollution and ecological degradation. It also aims to secure ecologically sustainable development while promoting justifiable economic and social development.

Chapter 2, Part 1 requires the Minister to develop a national framework that sets out mechanisms and procedures to ensure compliance with ambient air quality standards. It must also prescribe norms and standards to facilitate the monitoring, management and planning of air quality. This framework applies to all spheres of government. Part 2 allows the Minister to gazette national standards for substances or mixtures of substances in ambient air which, through ambient concentrations, bioaccumulation, deposit or in any other way, present a threat to health, well- being or the environment.<sup>13</sup> The MEC of a province may gazette provincial standards and a local municipality may set local standards through by-laws. National and provincial standards prevail and a municipality may only impose stricter standards for the municipality or any part of the municipality.

Chapter 3 regulates institutional and planning matters and requires the Municipality to designate an Air Quality Officer who is responsible for co-ordinating matters pertaining to air quality management in the municipality<sup>14</sup>. The Municipality must also develop and incorporate an Air Quality Management Plan in their IDP<sup>15</sup>. The West Coast District Municipality is currently compiling an Air Quality Management Plan for the whole District.

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<sup>13</sup> National Environmental Management: Air Quality Act (Act 39 of 2004) (9)(1)

<sup>14</sup> National Environmental Management: Air Quality Act (Act 39 of 2004) (14)(3)

<sup>15</sup> National Environmental Management: Air Quality Act (Act 39 of 2004) (15)(2)

**6.3.2.5 NATIONAL ENVIRONMENTAL MANAGEMENT: INTEGRATED COASTAL MANAGEMENT ACT (ACT NO. 24 OF 2008)**

The Integrated Coastal Management Act (ICMA) aims to establish a system of integrated coastal and estuarine management. Coastal management is defined as including;

- a) “the regulation, management, protection, conservation and rehabilitation of the coastal environment;
- b) the regulation and management of the use and development of the coastal zone and coastal resources;
- c) monitoring and enforcing compliance with laws and policies that regulate human activities within the coastal zone: and
- d) planning in connection with the activities referred to in paragraphs (a), (b) and (c)”

This Act places a number of obligations on municipalities and defines a municipality as being “a metropolitan, district or local municipality established in terms of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998)”. In areas where jurisdiction is shared by a district and local municipality, the district municipality is responsible for the implementation of the provisions of this Act unless the district municipality has by agreement assigned the implementation of any of the provisions of the Act to the local municipality. Negotiations are currently underway between BM and the WCDM to reach consensus on the implementation of the various provisions of the Act.

The objectives of the act are interalia to;

- ✦ Determine the coastal zone in South Africa
- ✦ Provide for co-ordinated and integrated management of the coastal zone by all spheres of government
- ✦ Preserve, protect, extend and enhance the status of coastal public property
- ✦ Ensure equitable access to opportunities and benefits to coastal public property
- ✦ Give effect to South Africa’s obligations under international coastal and marine law

Chapter 2 defines the coastal zone as being inclusive of;

- ✦ Coastal public property (Coastal waters, land submerged by coastal waters, islands in coastal waters, seashore, admiralty reserve owned by the state, other state land declared as coastal public property)
- ✦ Coastal protection zones (A continuous strip of land, starting from the high water mark and extending 100 metres inland in developed urban areas zoned as residential, commercial, or public open space, or 1000 metres inland in areas that are undeveloped or rural.)



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- ✚ Coastal access land (land which the public may use to gain access to coastal public property)
- ✚ Coastal waters
- ✚ Coastal protected areas
- ✚ Special management areas
- ✚ Coastal set-back lines

Municipalities have specific responsibilities in respect of coastal access land and must designate and regulate such land in terms of a by-law

Chapter 4 regulates estuary management and requires the Minister in conjunction with the Minister responsible for water affairs to develop an Estuarine Management Protocol to guide estuary management by the various organs of state and other parties. This protocol is still in draft form.

Chapter 5 regulates institutional arrangements and requires the Minister and MEC to establish national and provincial coastal committees. Coastal municipalities should be represented on provincial coastal committees. Municipalities may also establish a Municipal Coastal Committee to promote integrated coastal management.

Chapter 6 regulates coastal management and requires the Minister, MEC and municipalities to develop National, Provincial and Municipal Coastal Management Programmes (CMP) within 4 years of commencement of the Act. Municipalities may promulgate by-laws to facilitate implementation, administration and enforcement of their Coastal Management Programme. The draft National CMP is due to be published for comment in the near future and the West Coast District Municipality is in process of developing a Municipal CMP for the district.

Chapter 7 regulates the protection of the coastal environment, and authorises the Minister to issue a coastal protection notice in the case of existing or proposed activities that may have a negative effect on the coastal zone. The Minister may delegate powers to issue coastal protection notices to the MEC, who may sub delegate this power to a municipality.

Chapter 8 regulates marine and pollution control and provides that no person is allowed to discharge effluent from a source on land into coastal waters unless it is done in accordance with a general authorisation by the Minister or a coastal waters discharge permit.

### 6.3.2.6 NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE (ACT 59 OF 2008)

The Waste Act aims to protect health and the environment and secure ecologically sustainable development by regulating waste management. The objectives of the Act are to protect health, well-being and the environment by providing reasonable measures for;

- minimising the consumption of natural resources
- avoiding and minimising the generation of waste
- reducing, re-using, recycling and recovering waste
- treating and safely disposing of waste as a last resort
- preventing pollution and ecological degradation
- securing ecologically sustainable development while promoting justifiable economic and social development
- promoting and ensuring the effective delivery of waste services
- remedying land where contamination presents, or may present, a significant risk of harm to health or the environment
- achieving integrated waste management reporting and planning

The act also aims to ensure that people are aware of the impact of waste on their health, well-being and the environment<sup>16</sup>;

Chapter 2 requires the Minister to establish a National Waste Management Strategy that binds all organs of state and gazette national standards for;

- Waste classification
- Planning and provision of waste management services
- Storage, treatment and disposal of waste, including the planning and operation of waste treatment and disposal facilities.

The Minister may also set national norms and standards for interalia;

- the minimisation, re-use, recycling, recovery and separation of waste
- Remedying of contaminated land and soil quality

The MEC of a province may gazette provincial standards and a local municipality may set local standards for interalia;

- The separation, compacting and storage of solid waste that is collected by a municipality or disposed of at a municipal waste disposal facility
- The management of solid waste that is disposed of by the municipality or at a waste disposal facility owned by the municipality, including the avoidance and minimisation of the generation of waste and the recycling and recovery of solid waste

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<sup>16</sup> National Environmental Management: Waste Act 59 of 2002: (2)

✦ Litter control

Chapter 3 regulates institutional and planning matters. The Municipality is required to designate a Waste Management Officer who is responsible for co-ordinating matters pertaining to waste management in the municipality<sup>17</sup>. National and provincial departments responsible for waste management must prepare integrated waste management plans and Municipalities authorised to perform waste management services must develop an Integrated Waste Management Plan and include it in their IDP<sup>18</sup>. BM is currently in process of revising their Integrated Waste Management Plan.

### **6.3.3 OTHER LEGISLATION IMPACTING ON THE ENVIRONMENT**

#### **6.3.3.1 NATIONAL WATER ACT (ACT 36 OF 1998)**

The National Water Act recognises that water is a national resource which is scarce and unevenly distributed. The Act aims to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in a manner that will ensure sustainability and equitable access. Chapter 2 requires the Minister to develop a National Water Resource Strategy that sets out institutional arrangements, guidelines, objectives and strategies for the protection, use, development, conservation, management and control of water resources. The Act does not assign any legislative powers or duties to municipalities but cognizance needs to be taken of the underlying principles of the Act.

#### **6.3.3.2 WATER SERVICES ACT (ACT 108 OF 1997)**

The objectives of the Water Services Act include establishing the right of access to basic water and sanitation services to ensure sufficient water and an environment not harmful to human health or well being, the preparation and adoption of water services development plans by water services authorities and the promotion of effective water resource management and conservation. Chapter 3 provides for the establishment of water service authorities (any municipality responsible for water provision) whose duty it is to ensure efficient, affordable, economical and sustainable access to water services. Every water services authority must prepare a Water Services Development Plan for its area of jurisdiction which must include existing and proposed water conservation, recycling and environmental protection measures. Water service providers must also promulgate by laws to regulate the provision of water services. BM has a Water Services Development Plan and Water Services By-law in place.

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<sup>17</sup> National Environmental Management: Waste Act 59 of 2002: (10)

<sup>18</sup> National Environmental Management: Waste Act 59 of 2002: (11)

**6.3.3.3 CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)**

The Conservation of Agricultural Resources Act (CARA) aims to control the over-utilisation of agricultural resources, promote the conservation of soil, water resources and vegetation, and combating weeds and alien plants. There are several regulations issued in terms of CARA, the most important to the Municipality being Regulation 15 which is the only one that applies to urban areas. Regulation 15 classifies undesirable alien plants into three groups namely; declared weeds, plant invaders with commercial value and plant invaders with ornamental value.

**6.3.3.4 DISASTER MANAGEMENT ACT (ACT 57 OF 2002)**

The Disaster Management Act aims to provide an integrated and co-ordinated disaster management policy that focuses on preventing or reducing the risk of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery. Municipalities are required to prepare Disaster Management Plans for their area and incorporate them into the IDP<sup>19</sup>. Disaster Management Plans should anticipate the types of disaster that are likely to occur in the municipal area, the possible effects thereof and provide for appropriate prevention and mitigation strategies. The Municipality must consider biodiversity and the broader environment in the compilation of these plans.

**6.3.3.5 MINERALS AND PETROLEUM RESOURCES DEVELOPMENT ACT (ACT 28 OF 2002)**

The Minerals and Petroleum Resources Development Act (MRPDA) aims to ensure equitable access to and the sustainable development of the country's mineral and petroleum resources. No person may conduct any mining activities without the appropriate permit or authorisation and an approved environmental management programme / plan. Prospecting and mining operations must be conducted in accordance with generally accepted principles of sustainable development, the NEMA principles set out in Section 2 and the objectives of integrated environmental management set out in Chapter 5. Although the Municipality does not make decisions in respect of MRPDA applications, they are an integral part of the decision making process and should make full use of opportunities to ensure that activities within their area of jurisdiction do not have a detrimental impact on biodiversity and the broader environment.

**6.3.3.6 NATIONAL HERITAGE RESOURCES ACT (ACT 25 OF 1999)**

The National Heritage Resources Act (NHRA) provides an integrated and interactive system for the management of the national heritage resources. Heritage resources are resources which hold cultural

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<sup>19</sup> Disaster Management Act (Act 57 of 2002) (53)

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significance or other special value for the present community and for future generations and may include inter alia;

- historical settlements and townscapes
- landscapes and natural features of cultural significance
- geological sites of scientific or cultural importance
- archaeological and palaeontological sites

Heritage resource management takes place at national, provincial and local level. A municipality is responsible for the identification and management of Grade III heritage resources and other heritage resources which are deemed to fall within their competence in terms of this Act<sup>20</sup>. There is an overlap between heritage resources and biodiversity, a case in point being the Groot Winterhoek Wilderness Area which is included in the Cape Floristic Region UNESCO World Heritage Site.

### 6.3.3.7 NATIONAL VELD AND FOREST FIRE ACT (NO 101 OF 1998)

The National Veld and Forest Fire Act aims to prevent and combat veld, forest and mountain fires in South Africa. Chapter 2 of the Act provides for the establishment of Fire Protection Associations whose functions include predicting, preventing, managing and extinguishing veldfires. FPA's may be established by any land owner, but where a registered FPA falls within a municipality that is authorised to perform fire services, that municipality must become a member of the FPA and its Chief Fire Officer will be the designated fire protection officer. Fire prevention and management is characterised by multiple role players including district and local municipalities, DWAF and Working For Fire. A high level of cooperation between stakeholders is therefore essential. BM is a member of the Cederberg FPA.

## 6.4 NATIONAL POLICIES AND FRAMEWORKS

There are a number of national policy prescripts that the LBSAP must align to. National policy is divided into biodiversity and general environmental policy.

### 6.4.1 BIODIVERSITY POLICY FRAMEWORKS

#### 6.4.1.1 NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN

The National Biodiversity Strategy and Action Plan (NBSAP) was developed as part of South Africa's obligations in terms of the Convention on Biological Diversity (CBD). The NBSAP is a long term plan of action for the conservation and sustainable use of South Africa's biodiversity and the equitable sharing of benefits derived from its use. The goal of the NBSAP is to "Conserve and manage terrestrial and aquatic biodiversity to ensure sustainable and equitable benefits to the people of South Africa, now and

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<sup>20</sup> National Heritage Resources Act (Act 25 of 1999 (8))

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in the future.” The NBSAP comprises five strategic objectives, with outcomes which the LBSAP must align to.

*Table 7: NBSAP objectives and outcomes*

Strategic objectives	Outcomes
<p>An enabling policy and legislative framework integrates biodiversity management objectives into the economy.</p>	<ul style="list-style-type: none"> <li>▪ Biodiversity considerations are integrated into resource management policy and legislation.</li> <li>▪ A national biodiversity planning and assessment framework informs all decisions regarding land and resource use and spatial development.</li> <li>▪ The value of biodiversity to the economy and to people's lives is quantified and monitored to inform policy, strategy and action.</li> <li>▪ Biodiversity considerations are integrated into macro-economic, trade, industrial and tax policy.</li> </ul>
<p>Enhanced institutional effectiveness and efficiency ensures good governance in the biodiversity sector.</p>	<ul style="list-style-type: none"> <li>▪ Cooperative governance at all levels results in improved biodiversity management.</li> <li>▪ Institutions with biodiversity related responsibilities and programmes are effective, efficient and adequately capacitated.</li> <li>▪ A comprehensive and proactive national communication, awareness raising and advocacy strategy reaches targeted sectors and facilitates conservation and wise use of biodiversity.</li> <li>▪ The biodiversity sector is transformed and representative of South African society.</li> <li>▪ Financial resources for biodiversity management are adequate, and effectively and efficiently used.</li> <li>▪ Information management systems, research priorities, and monitoring and evaluation frameworks are in place and effectively supporting biodiversity management.</li> <li>▪ Proactive engagement and cooperation with the international community enhances conservation and sustainable use of shared resources and globally important biodiversity in South Africa.</li> </ul>

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<b>Strategic objectives</b>	<b>Outcomes</b>
<p>Integrated terrestrial and aquatic management across the country minimizes the impacts of threatening processes on biodiversity, enhances ecosystem services and improves social and economic security.</p>	<ul style="list-style-type: none"> <li>▪ Effective waste management and pollution control measures limit the impacts of pollution on biodiversity.</li> <li>▪ National initiatives to manage terrestrial and aquatic ecosystems are coordinated, developed and implemented with full stakeholder participation to contribute to sustainable socio-economic development.</li> <li>▪ Key production sectors and industries integrate biodiversity into their production and service standards.</li> <li>▪ A multi-agency national programme deals with the full suite of impacts posed by invasive alien species across the landscape and seascape.</li> <li>▪ An integrated national programme facilitates adaptation to the predicted impacts of climate change on biodiversity across the landscape and seascape.</li> <li>▪ Effective management and control measures minimize the potential risks to biodiversity posed by Genetically Modified Organisms.</li> <li>▪ Research and monitoring programmes support integrated management of terrestrial and aquatic ecosystems.</li> </ul>
<p>Human development and well-being is enhanced through sustainable use of biological resources and equitable sharing of the benefits.</p>	<ul style="list-style-type: none"> <li>▪ An equitable access, rights and responsibilities regime promotes sustainable utilization of biological resources.</li> <li>▪ Partnerships between government, the private sector, organized civil society and communities encourage entrepreneurship, innovation, investment and action at local level.</li> <li>▪ The ecological and social sustainability of extractive use of biological resources is assessed and monitored and opportunities for improvement are identified and implemented.</li> <li>▪ Use of biological resources is well managed to maximize sustainable benefits.</li> </ul>
<p>A network of protected areas conserves a representative sample of biodiversity and maintains key ecological</p>	<ul style="list-style-type: none"> <li>▪ Biodiversity priority areas identified in the National Spatial Biodiversity Assessment are refined in provincial, regional and local systematic biodiversity plans.</li> <li>▪ The protected area network is secured, expanded and managed to ensure that a representative sample of biodiversity and key ecological processes are conserved.</li> </ul>



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<b>Strategic objectives</b>	<b>Outcomes</b>
<p>processes across the landscape and seascape.</p>	<ul style="list-style-type: none"> <li>▪ Biodiversity is effectively managed in key ecological corridors and high priority fragments of natural habitat across the landscape and seascape.</li> <li>▪ Management plans for species of special concern ensure their long-term survival in the wild.</li> <li>▪ Research and monitoring programmes support the establishment and effective management of a network of protected areas</li> </ul>

#### **6.4.1.2 NATIONAL SPATIAL BIODIVERSITY ASSESSMENT**

The NSBA was also developed as part of South Africa's obligations in terms of the Convention on Biological Diversity (CBD). It provides a spatial depiction of South Africa's threatened and under protected ecosystems, and focuses attention on geographic priority areas for biodiversity conservation. South Africa's first NSBA was undertaken in 2004, and published in April 2005. The NSBA must be updated every five years.

The most significant causal factor of biodiversity loss in South Africa is loss or degradation of natural habitats and eco systems. The NBSA determines the status of an ecosystem on the extent of the original area of that eco system that is still intact and classifies it as critically endangered, endangered, vulnerable and least threatened.

The NSBA identifies three key strategies for conserving biodiversity namely;

- ✦ Pursuing opportunities to link biodiversity and socio economic development in priority geographic areas
- ✦ Focus emergency action on threatened ecosystems to prevent further loss of ecosystem functioning
- ✦ Expand the protected area network

The NSBA provides a spatial assessment of the biodiversity of terrestrial, river, estuarine and marine ecosystems and identifies priority actions. The NBSA does not clearly prescribe roles and responsibilities but acknowledges that local government has a key role to play in conserving biodiversity as day to day decision on land use planning and the utilization of natural resources at local level determine the extent to which biodiversity is conserved.

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**Table 8: NSBA Priority actions**

<b>Terrestrial ecosystems</b>	<b>River ecosystems</b>	<b>Estuary ecosystems</b>	<b>Marine ecosystems</b>
<ul style="list-style-type: none"> <li>▪ Work with economic sectors to develop guidelines to minimise natural habitat loss and protect ecosystem functioning</li> <li>▪ Strengthen bioregional programmes</li> <li>▪ Minimize habitat loss in threatened ecosystems</li> <li>▪ Prevent and manage the spread of alien species</li> <li>▪ Expand formal protected areas to achieve biodiversity targets</li> </ul>	<ul style="list-style-type: none"> <li>▪ Integrate land and water policy management</li> <li>▪ Feed information into DWAF's water resource classification system and catchments management strategies</li> <li>▪ Determine, implement and monitor ecological reserves in heavily impacted river systems</li> </ul>	<ul style="list-style-type: none"> <li>▪ Determine, implement and monitor the freshwater reserve for priority estuaries</li> <li>▪ Expand the number of protected estuaries to maintain a core set of estuaries in a natural or near natural state</li> <li>▪ Integrate resource management and land use management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Engage with commercial fishing industry to reduce negative affects on marine biodiversity</li> <li>▪ Engage with other sectors to develop guidelines to minimise natural habitat loss and protect marine ecosystem functioning</li> <li>▪ Expand marine protected areas</li> </ul>

#### **6.4.1.3 NATIONAL BIODIVERSITY FRAMEWORK**

The NBF is a requirement of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004). The purpose of the NBF is to “provide a framework to co-ordinate and align the efforts of various organisations and individuals involved in conserving and managing South Africa's biodiversity, in support of sustainable development”.

The NBF identifies the following as the major pressures on South Africa's biodiversity:

- ✦ Loss and degradation of natural habitats in terrestrial and aquatic ecosystems
- ✦ Invasive alien species
- ✦ Over harvesting of species, especially in the marine environment
- ✦ Over abstraction of water, especially for irrigation
- ✦ Climate change

The development of the NBF was informed by stakeholder consultations, the National Biodiversity Strategy and Action Plan (NBSAP) and the National Spatial Biodiversity Assessment (NSBA). The NSF is an extension of the NBSAP in that it has the same strategic objectives. The key difference between the NBSAP and the NBF is that the NBSAP is a long term plan whereas the NBF identifies 33 priority actions that need to be implemented by the biodiversity sector within a five year which commenced in 2009. The NBF does not assign responsibility for these priority actions to municipalities but they should be noted as some will impact on municipalities.

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*Table 9: NBF Priority actions*

Strategic objectives	Actions
An enabling policy and legislative framework integrates biodiversity management objectives into the economy.	<ol style="list-style-type: none"> <li>1. Make the case for the value of biodiversity as a cornerstone of sustainable development</li> <li>2. Integrate biodiversity considerations into fiscal policy through environmental fiscal reform</li> <li>3. Integrate biodiversity considerations in land-use planning and decision-making, by developing tools for supporting and streamlining environmental decision-making</li> <li>4. Finalise the regulatory framework for the prevention, containment and eradication of alien and invasive species</li> <li>5. Strengthen the regulatory framework for species of special concern</li> <li>6. Finalise the regulatory framework for bio prospecting, access and benefit sharing</li> </ol>
Enhanced institutional effectiveness and efficiency ensures good governance in the biodiversity sector.	<ol style="list-style-type: none"> <li>7. Establish and implement a human capital development strategy for the biodiversity sector to address transformation and scarce skills</li> <li>8. Fill key biodiversity information gaps</li> <li>9. Improve biodiversity information management and access</li> <li>10. Establish and implement a national biodiversity research strategy</li> <li>11. Establish and implement a national monitoring and reporting framework for biodiversity</li> <li>12. Establish a national programme to build the capacity of municipalities to include biodiversity opportunities and constraints in their planning and operations</li> <li>13. Establish pilot projects to explore mechanisms for integrated natural resource management at the district level</li> <li>14. Support the development and strengthening of bioregional and ecosystem programmes</li> </ol>
Integrated terrestrial and aquatic management across the country minimizes the impacts of threatening processes on	<ol style="list-style-type: none"> <li>15. Develop and implement an integrated programme for ecosystem adaptation to climate change, with an emphasis on ecosystems vulnerable to climate change impacts</li> <li>16. Develop provincial spatial biodiversity plans in additional provinces</li> <li>17. Publish bioregional plans in terms of the Biodiversity Act</li> </ol>

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<p>biodiversity, enhances ecosystem services and improves social and economic security.</p>	<p>18. List threatened or protected ecosystems in terms of the Biodiversity Act  19. Develop Biodiversity Management Plans for species of special concern and threatened ecosystems  20. Work with key production sectors to minimise loss and degradation of natural habitat in threatened ecosystems and critical biodiversity areas  21. Implement the AIS regulations  22. Implement the cross-sector policy objectives for conservation of inland water biodiversity  23. Incorporate biodiversity conservation objectives in the work of Catchments Management Agencies  24. Develop and implement effective measures for management and control of activities relating to Genetically Modified Organisms in order to manage their impact on the environment</p>
<p>Human development and well-being is enhanced through sustainable use of biological resources and equitable sharing of the benefits.</p>	<p>25. Address illegal and unregulated fishing and seafood trade, especially of line fish and abalone  26. Develop an implementation strategy for bio prospecting, access and benefit sharing regulations  27. Facilitate the development of the natural products sector  28. Improve knowledge of sustainable extractive use of terrestrial resources</p>
<p>A network of protected areas conserves a representative sample of biodiversity and maintains key ecological processes across the landscape and seascape.</p>	<p>29. Finalize the twenty-year National Protected Area Expansion Strategy, underpinned by national biodiversity targets  30. Implement the National Protected Area Expansion Strategy  31. Establish and strengthen provincial stewardship programmes  32. Strengthen programmes that support the informal conservation area system  33. Develop and implement a National Botanical Gardens expansion strategy</p>

## **6.4.2 ENVIRONMENTAL POLICY**

### **6.4.2.1 NATIONAL WATER RESOURCE STRATEGY**

The National Water Resource Strategy (NWRS) was approved in 2004 and is currently under review. The objectives of the 2004 NWRS are equitable access to water resources and sustainable management of water resources. Chapter 3 sets strategies, objectives, plans, guidelines and procedures, and the institutional arrangements necessary for the protection, use, development, conservation, management and control of South Africa's water resources. The following aspects of the strategy are important to the development of the LBSAP;

- Protection of water resources through resource directed measures and source directed controls; Resource directed controls focus on the quality of the water resource which is a measure of its ecological status. Source directed controls focus on limits and constraints that must be imposed on the use of water resources to achieve the desired level of protection and include the protection of interalia groundwater resources and wetlands
- Water use; particularly the implementation of source directed controls to prevent and minimise pollution
- Water conservation and water demand management; particularly control of invasive alien vegetation and the application of the water conservation and water demand principles.

### **6.4.2.2 NATIONAL WASTE MANAGEMENT STRATEGY**

The National Waste Management Strategy (NWMS) was published for public comment in 2010. The development of the NWMS is a requirement of the National Environmental Management: Waste Act and a response to various international conventions. The NWMS is premised on the fact that effective solid waste management systems can make valuable contributions to public health, environmental sustainability, economic development and poverty alleviation. Implementation of the NWMS requires high levels of cooperation between all spheres of government and the private sector. The table below provides an overview of the general and process related goals and objectives of the NWMS.

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*Table 10: Goals and objectives of the NWMS*

<b>General</b>		<b>Process</b>	
<b>Goals</b>	<b>Objectives</b>	<b>Goals</b>	<b>Objectives</b>
Securing ecologically sustainable development while promoting justifiable economic and social development	<ul style="list-style-type: none"> <li>▪ To ensure the protection of the environment through effective waste management measures</li> <li>▪ To protect the health and wellbeing of people by providing an affordable waste collection service</li> <li>▪ Grow the contribution of the waste sector to GDP</li> <li>▪ Increase number of jobs within waste services, recycling and recovery sectors</li> <li>▪ Promote SMMEs in waste sector</li> </ul>	Achieving integrated waste management planning	<ul style="list-style-type: none"> <li>▪ Reliable information on waste flows and an accurate national waste balance</li> <li>▪ Establish an effective system of performance based IWMPs at all levels of government</li> <li>▪ Individual IWMPs adopted for key industrial sectors</li> </ul>
Avoiding and minimizing the generation of waste	<ul style="list-style-type: none"> <li>▪ Design and manufacture of products to avoid or minimize waste generation</li> <li>▪ Discourage waste generation through cost reflective and volume based tariffs</li> <li>▪ Consumer awareness of waste minimization issues</li> </ul>	Sound budgeting and financial management for waste services	<ul style="list-style-type: none"> <li>▪ Sound financial planning for waste services</li> <li>▪ Full cost accounting for waste services</li> <li>▪ Cost reflective and volumetric tariffs implemented</li> <li>▪ Waste services sustainably financed</li> </ul>
Reducing, re-using, recycling and recovering waste	<ul style="list-style-type: none"> <li>▪ Increase reuse and recycling rates of products</li> <li>▪ Reduce % of recyclable material to landfill</li> <li>▪ Implement separation at source in all metros and local municipalities</li> <li>▪ Establish MIRFs at all waste disposal sites</li> </ul>	Adequate staffing and capacity for waste management	<ul style="list-style-type: none"> <li>▪ WMOs appointed at all levels of government</li> <li>▪ Additional technical capacity developed to deal with norms and standards, industry regulation and remediation</li> <li>▪ EMI capacity expanded to deal with Waste Act</li> <li>▪ Private sector capacity mobilized to support waste</li> </ul>



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Promoting and ensuring the effective delivery of waste services	<ul style="list-style-type: none"> <li>▪ Provide at least a basic level of waste service to</li> <li>▪ All solid waste management to be performed efficiently and effectively</li> <li>▪ Implement free basic refuse removal policy for indigent households</li> </ul>	Effective compliance with and enforcement of waste regulations	<p>service delivery and community based collection models</p> <ul style="list-style-type: none"> <li>▪ Systematic monitoring of compliance with regulations and permit conditions</li> <li>▪ Culture of compliance with waste act regulations established</li> <li>▪ Establishment of a hotline to report non compliance</li> <li>▪ Waste offenders successfully prosecuted</li> </ul>
Treating and safely disposing of waste as a last resort	<ul style="list-style-type: none"> <li>▪ Quantity of waste disposed to landfill to stabilize, and then reduce.</li> <li>▪ Regionalisation of waste management services</li> <li>▪ Landfills to be properly managed and compliant with legislation</li> <li>▪ Increase thermal treatment and conversion of waste to energy</li> </ul>	Effective monitoring and reporting on performance with waste functions	<ul style="list-style-type: none"> <li>▪ Systematic monitoring of key performance indicators by each sphere of government</li> <li>▪ Reporting on key performance indicators in line with Waste Act</li> <li>▪ Regular evaluation of performance with waste functions and individual WMPs</li> </ul>
Remediating land where contamination presents a significant risk of harm to health or the environment	<ul style="list-style-type: none"> <li>▪ Quantify the extent of contaminated land</li> <li>▪ Implement contaminated land measures in the Waste Act</li> <li>▪ Remediate priority areas of contaminated land</li> <li>▪ Clarify extent of state liability for contaminated land</li> </ul>	Ensure that people are aware of the impact of waste on their health, well-being and the environment	<ul style="list-style-type: none"> <li>▪ To develop national and local awareness campaigns on the social importance of waste management</li> <li>▪ Promote waste minimization and recycling through education system</li> <li>▪ Establish an equivalent to the “Blue Drop” award for waste management by municipalities</li> </ul>

#### **6.4.2.3 NATIONAL FRAMEWORK FOR AIR QUALITY MANAGEMENT**

The National Framework for Air Quality Management (NFAQM) was approved in 2007. The development of the NFAQM is a requirement of the National Environmental Management: Air Quality Act. The NFAQM provides for mechanisms, systems and procedures to promote holistic and integrated air quality management through pollution prevention and minimisation at source, and impact management on the receiving environment. The NFAQM provides a guiding framework for implementation of the Act.

### **6.5 PROVINCIAL LEGISLATION**

#### **6.5.1 CONSTITUTION OF THE WESTERN CAPE (ACT 1 OF 1998)**

The Western Cape government must is required to adopt and implement policies to actively promote and maintain the welfare of the people of the Western Cape, including policies aimed at protecting the following;

- The environment in the Western Cape, including its unique fauna and flora
- The natural historical, cultural historical, archaeological and architectural heritage of the Province

#### **6.5.2 LAND USE PLANNING ORDINANCE (ORDINANCE 15 OF 1985)**

The Land Use Planning Ordinance (LUPO) does little to directly promote environmental /biodiversity conservation, but it does regulate land use planning which is critical to the conservation of biodiversity.

#### **6.5.3 WESTERN CAPE PLANNING AND DEVELOPMENT ACT (ACT 7 OF 1999)**

This Western Cape Planning and Development Act establishes an integrated development planning system for the Province. It provides frameworks and standards for development planning at municipal and provincial level, including environmental protection and land development management.

### **6.6 PROVINCIAL POLICIES AND FRAMEWORKS**

Environmental conservation and biodiversity are components of various policy frameworks, the most significant being the following;

#### **6.6.1 WESTERN CAPE SPATIAL DEVELOPMENT FRAMEWORK (2009 REVISION)**

The Western Cape Spatial development Framework (WC SDF) aims to:

- Be the spatial expression of the Provincial Growth and Development Strategy (PGDS)
- Guide (metropolitan, district and local) municipal integrated development plans and spatial development frameworks
- Help prioritise and align investment and infrastructure plans of other provincial departments, national departments and parastatals
- Provide clear signals to the private sector about desired development directions

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- Increase predictability in the development environment, by establishing no-go, conditional and 'go' areas for development etc.
- Redress the spatial legacy of apartheid.

The WC SDF identifies three main intervention areas namely;

- Socio-Economic Development
- Urban Restructuring
- Environmental Sustainability

Objectives and strategies are identified for each area of intervention. BM must reflect these intervention areas, objectives and strategies in their SDF's. Objectives and strategies relevant to this project are depicted in the table below;

*Table 11: Intervention areas and objectives of the Provincial SDF*

<b>Intervention area</b>	<b>Objectives</b>	<b>Strategies</b>
Socio-Economic Development	<ul style="list-style-type: none"> <li>▪ Conserve and strengthen the sense of place of important natural, cultural and productive landscapes, artefacts and buildings</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identify and map key heritage resources</li> <li>▪ Promote tree planting and greening in urban settlements.</li> </ul>
Environmental Sustainability	<ul style="list-style-type: none"> <li>▪ Protect biodiversity and agricultural resources.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prevent the inappropriate conversion of bio diverse rich rural areas, existing agricultural activity and soil with agricultural potential and important cultural and scenic landscapes to other uses.</li> <li>▪ Provide the highest protection to rivers and remaining areas of critically endangered biodiversity.</li> <li>▪ Cease urban development outside of urban edges.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Minimise the consumption of scarce environmental resources, particularly water, fuel, building materials, mineral resources, electricity and land - in the latter case especially pristine and other</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enforce new building codes that require the reduction of water and energy consumption, and the use of renewable building material wherever possible</li> </ul>

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	rural land, which is the Province's 'goldmine-above-the-ground'.	
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The WCSDF also sets out spatial planning categories (SPC's) and sub categories. The main categories are core, buffer, intensive agriculture, urban and industrial areas. Municipalities SDF's need to reflect this categorisation

#### **6.6.2 RURAL LAND USE PLANNING AND DEVELOPMENT GUIDELINES (2009)**

These guidelines were published to support the role out of the WCSDF. These guidelines guide land use planning and management outside the urban edge. The guidelines presuppose the delineation of spatial planning categories (SPC's) in accordance with Provincial Spatial Development Framework and align them to the Critical Biodiversity Areas (CBA) Maps The guidelines set out delineation guidelines and the purpose of each SPC and suggest appropriate land use and activities within these areas. These guidelines are significant to BM, because the municipal area is predominantly rural and much of the remaining CBA's are private rural land.

#### **6.6.3 WESTERN CAPE PROVINCIAL URBAN EDGE GUIDELINES (2005)**

These guidelines were published to regulate the outer limits of development around urban areas. The guidelines acknowledge that urbanisation often goes hand in hand with negative environmental impacts and set out principles to guide the determination, assessment and management of urban edges as well as the assessment of urban edge related applications. These principles include environmental and ecological considerations.

#### **6.6.4 WESTERN CAPE CLIMATE CHANGE STRATEGY AND ACTION PLAN (2008)**

The Western Cape Climate Change Strategy and Action Plan is premised on the following guiding Principles:

- Government leads by example but shares the responsibility by building on cooperative partnerships across all levels of government, industry and the community.
- An integrated, consistent long-term approach and framework underpinned by the sustainable development goals of the province.
- Assistance to the province's community and industry through facilitating the provision of information, policy guidance and incentives where applicable, and regulation where necessary.

This Strategy comprises;

- Adaptation response strategies and programmes including;
  - Integrated water management programmes
  - Climate change, weather research and information programmes

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- Land stewardship and livelihoods programmes
- Mitigation response strategies and programmes including;
  - Energy, transport, waste and air quality management programmes

The responsibility to implement actions arising from this Strategy is assigned to Provincial Departments, but municipalities are required to align their IDP's to the Strategy.

**6.7 DISTRICT POLICIES AND FRAMEWORKS**

District policies and frameworks include policies and frameworks of the West Coast District Municipality (WCDM) and other frameworks compiled by other organs of state to regulate environmental issues within the municipality's area of jurisdiction. The most important policy frameworks of the WCDM are the IDP and the Integrated Environmental Plan (IEP). WCDM does have other frameworks that deal with environmental impacts such as their SDF, Water Services Plan and Disaster Management Plan, but these are not dealt with here as there are local municipality equivalents.

**6.7.1 WEST COAST DISTRICT MUNICIPALITY INTEGRATED DEVELOPMENT PLAN DRAFT REVIEW (2010/2011)**

District Municipalities must undertake municipal planning for the district as whole and local municipalities must align their planning with this framework. The IDP commits the Municipality to the following vision and mission;

*Table 12: Vision and mission of WCDM*

<b>Vision:</b>	"The West Coast District realises that our core responsibility and mandate is to be developmentally orientated, namely to inspire, encourage and ensure a safe, healthy, educational, economically viable and friendly environment that will enhance and harness a culture of self-reliance amongst the citizens of the West Coast Region."
<b>Mission:</b>	"To ensure that the West Coast District Municipality provides a Better Quality of Life for All in the West Coast Region through the encouragement of communities to participate in decision-making processes that will develop the citizens of the region to their optimal capacity"

The overarching goals of the Municipality are;

- Environmental integrity
- Economic efficiency
- Social well-being
- Institutional preparedness

### 6.7.2 INTEGRATED ENVIRONMENTAL PROGRAMME OF THE WEST COAST DISTRICT MUNICIPALITY (2006)

The Integrated Environmental Programme (IEP) of the West Coast District Municipality was compiled for the period 2006/07 – 2010/2011 and is therefore due for renewal. It is included in this policy framework because the actions that it identified for local municipalities remain relevant.

The IEP is divided into various themes, the most important to this project being biodiversity protection and conservation including alien management. Other themes of importance are;

- ✦ Overarching environmental goals
- ✦ Governance
- ✦ Resource use
- ✦ Strategic planning and management
- ✦ Community and role player engagement
- ✦ Information sharing and communication
- ✦ Capacity building

The following table provides an overview of actions that should have been undertaken by local municipalities either independently or in cooperation with other stakeholders to contribute to the conservation of biodiversity.

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**Table 13: Themes of the WCDM IEM and actions to be implemented by local municipalities**

<b>Theme</b>	<b>Actions</b>
Promote and conserve biodiversity and eradicate aliens	<ul style="list-style-type: none"> <li>▪ Formulate and implement property rates policies that promote / provide incentives for responsible environmental and resource management</li> <li>▪ Identify priority biodiversity areas on municipal property that can be formalised as conservation areas</li> <li>▪ Develop localised strategic guidelines for biodiversity priority areas</li> <li>▪ Biodiversity information to be meaningfully incorporated into SDF's and other spatial planning initiatives.</li> <li>▪ Programme to increase landowner awareness regarding their responsibility in terms of invasive aliens</li> <li>▪ Broad awareness of legal responsibilities in terms of alien clearing</li> <li>▪ Awareness amongst municipal staff and councillors of role of linear infrastructure features (e.g. roads, power lines) as natural linkages in conservation corridors</li> <li>▪ Increase dedicated environmental capacity in each local municipality</li> </ul>
Overarching environmental goals	<ul style="list-style-type: none"> <li>▪ Ensure that the community are meaningfully involved in environmental initiatives from inception, and share benefits equitably</li> <li>▪ Undertake an environmental audit of municipal services</li> <li>▪ Meaningfully engage around biodiversity issues with the other Environmental bodies in the WCDM</li> <li>▪ Determine, safeguard and improve the environmental integrity of natural areas not under formal conservation</li> <li>▪ Contextualise "environmental" goals and objectives with other regional specific goals and objectives</li> <li>▪ Create structural and systematic linkages between the components that constitute the three imperatives for sustainable development in the WC region</li> </ul>
Governance	<ul style="list-style-type: none"> <li>▪ Memorandums of Understanding (MoU) between government bodies to codify actions for issues/areas of concern/conflict</li> <li>▪ Create an Environmental staff position / function in each municipality</li> <li>▪ Determine the environmental planning, conservation and management function/ responsibility to be situated in local</li> </ul>

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	<p>municipalities</p> <ul style="list-style-type: none"> <li>▪ Determine budgetary implications for local municipalities to perform their role and responsibility in environmental planning, conservation and management</li> </ul>
Resource use	<ul style="list-style-type: none"> <li>▪ Determine preliminary thresholds for usage of particular resources and subsequent conservation priorities</li> <li>▪ Set realistic targets for Water Conservation &amp; Demand Management (rural and urban)</li> <li>▪ Create and implement an Air Quality Management Plan</li> <li>▪ Undertake an audit of municipal waste services to quantify the impact on the environment</li> <li>▪ Determine policy for hazardous waste site</li> <li>▪ Collaborate with DWAF to eliminate all unpermitted waste disposal sites</li> <li>▪ Monitoring, access control and conservation of coastline must consider the presence and significance of archaeological and palaeontology heritage resources located along it.</li> </ul>
Strategic planning and management	<ul style="list-style-type: none"> <li>▪ Develop and implement a policy that all local municipalities will utilise biodiversity information to inform local planning</li> <li>▪ Prepare a SoER under the IDP</li> <li>▪ Institute environmental performance scorecard initiative for all district initiatives to participate in programmes and projects</li> <li>▪ Promote and incorporate in planning the philosophy of bioregions that acknowledge the difference between areas from a human and environmental perspective.</li> </ul>
Community engagement / Information	<ul style="list-style-type: none"> <li>▪ Provide communities with coherent information on Environmental Conservation Planning and Management through IEP, environmental Awareness week initiative and IDP process</li> <li>▪ Utilise fire protection &amp; agricultural associations/ structures to speak/engage with farmers on matters environmental planning, conservation &amp; management</li> <li>▪ Support school environmental education initiatives</li> <li>▪ Participate in existing information-sharing opportunities</li> <li>▪ Participate in Environmental Awareness Week with active programme and media coverage</li> </ul>



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Capacity development	<ul style="list-style-type: none"><li>▪ Create environmental capacity/function within each local municipality staff complement</li></ul>
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**6.7.3 THE BIODIVERSITY SECTOR PLAN FOR THE SALDANHA BAY, BERGRIVIER, CEDERBERG AND MATZIKAMA MUNICIPALITIES**

The Biodiversity Sector Plan was produced by Cape Nature as part of the C.A.P.E. Fine-scale Biodiversity Planning Project. The plan comprises a biodiversity profile, management guidelines and Critical Biodiversity Area Maps (CBA's) for each municipality.

The CBA maps divide the landscape into seven categories namely;

- Protected Areas
- Critical biodiversity areas – Terrestrial
- Critical biodiversity areas – Aquatic (including buffers)
- Critical ecological support areas (including buffers)
- Other ecological support areas (including buffers)
- Other natural areas
- No natural remaining areas

The objective of the Plan is to avoid the loss of natural habitat in Critical Biodiversity Areas (CBA), prevent the degradation of Ecological Support Areas (ESA), and encourage sustainable development in other natural areas. The Plan achieves this by providing a common point of reference for decision making by officials in all spheres of government. It also serves as a guide to environmental and planning professionals, landowners, developers and the general public.

**6.8 LOCAL POLICIES AND FRAMEWORKS**

Local policies and frameworks include policies and frameworks of the Bergrivier Municipality and other frameworks compiled by other organs of state to regulate specific environmental issues within the municipality's area of jurisdiction.

**6.8.1 BERGRIVIER MUNICIPALITY INTEGRATED DEVELOPMENT PLAN REVIEW (2010)**

The IDP commits the Municipality to the following vision and mission;

*Table 14 Vision and mission of BM*

<b>Vision:</b>	"Bergrivier Municipality strives towards a satisfied community by means of balanced, agreed upon, sustainable and effective service delivery"
<b>Mission:</b>	"Our mission is to deliver cost effective, sustainable services with a well represented army of employees who are motivated to stimulate local economic development as well as <u>environmentally sensitive</u> development through transparent decision making based on sound management principles within the ambit of unique character and cultural, historical heritage"

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BM's mission acknowledges the necessity of ensuring that development is environmentally sensitive.

The IDP sets out eleven strategic objectives, none of which directly promote the conservation of biodiversity. There is however an indirect link between three of its strategic objectives and biodiversity namely;

- Local economic development; the local economic development needs of the community indicate an acknowledgement of the link between biodiversity and local economic development. The communities local economic needs included; the greening of towns, control of littering, recycling and addressing the presence of hazardous dumpsites. The IDP also recognises an inextricable link between biodiversity and tourism.
- A motivated, skilled and empowered workforce are critical to the conservation of biodiversity
- Effective policing is critical to the conservation of biodiversity

**6.8.2 BERGRIVIER MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK 2008**

The 2008 BM SDF is a revision of the 2000 SDF. It does not include a Strategic Environmental Assessment (SEA) but did consider biophysical and biodiversity elements in the determination of the spatial issues relevant to the revision. The main emphasis is on the urban environment and its associated challenges.

The SDF is based on a number of principles including conservation with progression as opposed to conservation with stagnation, sustainable use of resources, ecological equilibrium and combating local and global climate change. The goals of the SDF include triple bottom line goals and the conservation of biodiversity in relation to the delineation of the urban edge.

The BM SDF comprises two distinct sets of spatial planning categories namely those that apply to all of BM excluding the farms south of the Berg River and those that apply to the farms south of the Berg River which were adapted from the Saldanha SDF. Tables 11 and 12 provide an overview of these categories<sup>21</sup>

*Table 15: Spatial planning categories applicable to all of BM except the farms south of the Berg River*

Category	Description	Basic purpose
Category A	Core Area (Consistent with UNESCO's Biosphere Reserve 'Core Areas')	<ul style="list-style-type: none"> <li>▪ Comprising areas of high conservation importance that must be protected from change.</li> <li>▪ Only non-consumptive land-uses allowed</li> </ul>
Category B	Buffer Zone (Consistent with UNESCO's Biosphere	<ul style="list-style-type: none"> <li>▪ Serving as a buffer between Category A Areas and Category C Areas.</li> </ul>

<sup>21</sup> Tables extracted from Bergrivier Spatial Development Framework 2008

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	Reserve 'Buffer Zone' and 'Transition Zone 1').	<ul style="list-style-type: none"> <li>▪ Sustainable small-scale development and non-consumptive land-uses allowed</li> </ul>
Category C	Agricultural areas (Consistent with UNESCO's Biosphere Reserve Transition Zone 2')	<ul style="list-style-type: none"> <li>▪ Constituting rural areas where extensive and intensive agriculture is practiced</li> <li>▪ Including forestry areas</li> </ul>
Category D	Urban-related areas (Consistent with UNESCO's Biosphere Reserve 'Transition Zone 3')	<ul style="list-style-type: none"> <li>▪ Representing a broad spectrum of nodal urban-related settlements and their associated services and infrastructure</li> </ul>
Category E	Industrial areas	<ul style="list-style-type: none"> <li>▪ Representing the industrial areas where the highest intensity of human activity occurs</li> </ul>
Category F	Surface infrastructure and buildings	<ul style="list-style-type: none"> <li>▪ Constituting all surface infrastructure and buildings not catered for in the above categories</li> <li>▪ Including roads, railway lines, power lines, communication structures, etc</li> </ul>

*Table 16: Spatial planning categories applicable to the farms south of the Berg River*

<b>Land-use</b>	<b>Classification</b>
Conservation 1	<ul style="list-style-type: none"> <li>▪ Statutory conservation areas</li> <li>▪ State-owned parts of Mountain Catchment Areas, which provide valuable ecosystem services.</li> </ul>
Conservation II	<ul style="list-style-type: none"> <li>▪ Areas categorised as a Critical Biodiversity Area (both terrestrial and aquatic).</li> <li>▪ Land within Mountain Catchment Areas in private ownership which provides important ecosystem services</li> <li>▪ Mountainous areas or areas on steep slopes unsuitable for development, and having high landscape, visual and / or heritage value, and / or providing an important ecosystem service (eg coastal protection or buffer, etc).</li> <li>▪ Natural areas of high connectivity value with protected, Critically Endangered or Endangered areas outside the municipal area.</li> <li>▪ Floodplains, wetlands, river corridors and riparian areas within these categories</li> </ul>
Conservation agriculture buffer	<ul style="list-style-type: none"> <li>▪ Untransformed areas that are not categorised as a Critical Biodiversity Area.</li> <li>▪ Natural areas within the municipal boundary in close proximity to Conservation 1 or Conservation II SPCs, which provide a buffering role to those SPCs Tracts of habitat within the municipal boundary which play a critical role in maintaining</li> </ul>

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	<p>connectivity between fragments of threatened habitat</p> <ul style="list-style-type: none"> <li>▪ Natural areas or partly transformed areas outside of core agriculture, urban or conservation SPCs, which link up with natural areas beyond the municipal boundary</li> <li>▪ Formally demarcated 'buffer' areas of Biosphere Reserves</li> <li>▪ Floodplains, wetlands, river corridors and riparian areas within this SPC</li> </ul>
Core agriculture	<ul style="list-style-type: none"> <li>▪ Largely transformed areas.</li> <li>▪ Un-transformed areas categorised either as Critically Endangered or Endangered ecosystems, or ecosystems which are not currently under threat</li> <li>▪ Floodplains, wetlands and riparian areas within this SPC.</li> </ul>
Agriculture and eco tourism	<ul style="list-style-type: none"> <li>▪ Farmstead and associated buildings.</li> <li>▪ Tourism related buildings and infrastructure</li> </ul>
Core Urban Area	<ul style="list-style-type: none"> <li>▪ Urban Areas</li> </ul>

Annexure 6 of the 2008 SDF sets out permissible land uses and policy to regulate development in these areas. There is however a disparity in that the policy guidelines applicable to the Core and Buffer SPC's are much less stringent than the Conservation SPC's, which means that there is not a uniform level of protection throughout the Municipal area.

**6.8.3 LOCAL ECONOMIC DEVELOPMENT STRATEGY (2009/10)**

BM commissioned the development of a revised Local Economic Development (LED) Strategy during the 2009/10 financial year. This strategy is premised on two critical economic principals namely

- The development of household earning and spending capacity
- The diversification of current primary economic activities which includes;
  - Diversification of the economy into different sectors
  - Internal diversification of particular sectors

The revised LED Strategy advocates a two phased implementation plan. Phase 1 comprises large scale, high impact projects aimed at boosting the local economy by making an impact on employment in Piketberg, Porterville and Velddrif, while phase 2 comprises projects aimed at continuing and consolidating the economic growth and development achieved through Phase 1.

*Table 17: LED Phase 1 high impact projects that can be linked to biodiversity*

<b>Towns where projects should be implemented</b>	<b>Projects</b>
<ul style="list-style-type: none"> <li>▪ Velddrif</li> <li>▪ Porterville</li> </ul>	<ul style="list-style-type: none"> <li>▪ Floriculture (Cut flowers)</li> <li>▪ Kelp farming and processing</li> </ul>

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▪ Piketberg	▪ Tourism
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*Table 18: LED Phase 2 projects that can be linked to biodiversity*

<b>Veldrif</b>	<b>Redelinghuys</b>	<b>Goedverwacht</b>	<b>Porterville</b>	<b>Aurora</b>
<ul style="list-style-type: none"> <li>▪ Entrepreneurship opportunities in whale and bird watching</li> <li>▪ Holiday resort development</li> <li>▪ Marina and waterfront development</li> </ul>	<ul style="list-style-type: none"> <li>▪ Game parks</li> <li>▪ Production of Rooibos Tea</li> <li>▪ Fynbos/Flora attractions</li> <li>▪ Hiking trails</li> <li>▪ Exhibition of Archaeological findings</li> </ul>	<ul style="list-style-type: none"> <li>▪ Development of bird watching attraction point</li> <li>▪ Art and craft centre</li> </ul>	<ul style="list-style-type: none"> <li>▪ Agriculture, eco and adventure tourism points</li> </ul>	<ul style="list-style-type: none"> <li>▪ Agricultural tourism</li> <li>▪ Development of botanical garden</li> </ul>

**6.8.4 BERGRIVIER DISASTER MANAGEMENT PLAN**

BM adopted a Disaster Management Plan in 2008. The plan outlines policies and procedures for proactive disaster prevention and reactive disaster response and mitigation. The plan includes priority risks and hazards. Hazards are defined as “threats to life, well being, material goods, and or the environment caused by extreme natural processes or technological developments”. The following have been identified as priority risks and hazards;

- Fire
- Drought
- Severe weather
- Water pollution
- Red tide

The plan distinguishes between risks requiring risk reduction plans and risks requiring preparedness plans. The following table indicates risks that could have an impact on biodiversity for which there are risk reduction and risk preparedness plans in place

*Table 19: Risk reduction and preparedness plans*

<b>Risk reduction plans</b>	<b>Risk preparedness plans</b>
<ul style="list-style-type: none"> <li>▪ Drought</li> <li>▪ Severe whether</li> <li>▪ Fire</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fire</li> <li>▪ Drought</li> <li>▪ Severe weather</li> </ul>

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	<ul style="list-style-type: none"><li>▪ Air pollution</li><li>▪ Water pollution</li><li>▪ Land degradation</li><li>▪ Deforestation</li><li>▪ Desertification</li></ul>
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Water pollution is a priority risk but there is no risk reduction plan in place.

**6.8.5 WATER SERVICES DEVELOPMENT PLAN FOR BERGRIVIER MUNICIPALITY (2010)**

The Water Services Development Plan (WSDP) was compiled in compliance with the Water Services Act. The two most critical issues addressed in the WSDP are;

- The eradication of water and sanitation backlogs
- Water Conservation and Water Demand Management (WC/WDM)

The WSDP does not address biodiversity as such, but the recommended actions contained therein are important to the conservation of biodiversity as both pollution and inadequate water will have a negative impact on biodiversity.

**6.8.6 BERGRIVIER MUNICIPALITY BIODIVERSITY REPORT (2010)**

The Bergrivier Municipality Biodiversity Report was commissioned by BM as the first step in the LAB process. It provides a detailed assessment of the status quo of the biodiversity and management of biodiversity management in the Bergrivier area and is divided into themes including; ecology, governance, integration and participation. The report provides an analysis of the terrestrial and aquatic ecosystems within the municipality's area of jurisdiction including a description and the identification of key areas requiring conservation and management guidelines for these areas. Many of the priority issues that will be discussed in section 4 of this LBSAP emanate from this report.

**6.8.7 BERG ESTUARY DRAFT MANAGEMENT PLAN (2009)**

The Berg Estuary Draft Management Plan was compiled By Cape Nature as part of the C.A.P.E. Estuaries Management Programme. The Plan sets out a vision and management objectives for the Berg estuary. It also identifies strategies and actions to be undertaken over the medium term to achieve the vision. The plan presupposes the establishment of a management agency comprising key stakeholders including Berg River Local Municipality, Cape Nature, Marine & Coastal Management, West Coast District Municipality, Western Cape Provincial Government, Department of Water Affairs.

The vision for the Berg Estuary is;

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“The Berg estuary is a wetland of global conservation significance that provides recreational, social and economic benefits through a balance between sustainable use, conservation and development.”

The management objectives for the Berg Estuary are;

- Maximise long-term economic benefits
- Conserve biodiversity
- Ensure harmony among users
- Improve ecosystem health
- Retain sense of place
- Increase awareness

These objectives are broken down into management actions with outcomes. Roles and responsibilities are assigned to the key role players. The Berg Estuary management Forum (BEMF) is established and actively involved in the conservation of the Estuary, but require coordinated support from all stakeholders to take the process forward. The strategic positioning of the Berg Estuary within Bergrivier Municipality means that the Municipality should be playing a leading role in ensuring that it is accorded the highest possible conservation status.



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**ANNEXURE A: STAKEHOLDERS WHO PARTICIPATED IN CONSULTATION PROCESS**

<b>Stakeholders</b>	<b>Representatives</b>	
Bergrivier Municipality	Office of the Municipal Manager	Ms C Welman
	Technical Services	Mr A Willemse Mr J Strumphier Mr J Breunnisen Mr L Gouws Mr R Bothma
	Community Services	Mr D Lambrecht
	Corporate Services	Mr J Joubert Mr W Wagener
	Municipal Councillors	Clr C Liebenberg Clr A DeVries Clr S Crafford Clr E Schreuder Clr F Van Niekerk Clr D Mbabane Clr C Karouls Clr J Swart
West Coast District Municipality	Environmental Officer	Mr C Malherbe
	Town Planner	Ms D Kotze
ICLEI-LAB	Ms S Patrickson	
National Department of Environmental Affairs: Oceans and Coasts	Working for the Coast	Mr K Meyer
National Department of Water Affairs and Forestry	Working for fire	Ms S Lawrence Mr F Magope
	Working for Water	Ms A Morat
	DWAF (Water Conservation Services)	Mr D Daniels
Western Cape Department of Environmental Affairs and Development Planning	Deputy Director: Biodiversity	Mr D Ladler
Western Cape Department of Agriculture	West Coast District	Mr J Smit
	Land Care South Africa	
SANBI	Working for Wetlands	Ms H Niewoudt

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Cape Nature	Scientific Services	Ms K Maree Mr P De Villiers
	North West Area	Ms J Gouza Mr J Burger Ms S Basson Mr R Van Der Walt
	Brede Berg Area	Mr M Floris
Berg Management Forum (BEMF)	Dr D Schreuder	
Velddrif Berg Bewarings Genootskap	Mr Vermeulen	
Piketberg Forum (Greening Committee)	Ms M Matzener	

## ANNEXURE B: OUTCOMES OF THE STAKEHOLDER CONSULTATION PROCESS

Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
1. Institutionalisation of biodiversity at Bergrivier Municipality	<ul style="list-style-type: none"> <li>▪ The IDP does not directly address biodiversity</li> <li>▪ The performance management system of BM does not accommodate biodiversity or hold anyone accountable for it.</li> <li>▪ There is no dedicated environmental unit or strategically placed position on the staff structure to champion biodiversity</li> <li>▪ Councillors and officials understand biodiversity, but a common and holistic understanding of the concept is lacking</li> <li>▪ Governance processes, policies and by-laws were not developed with biodiversity or the NEMA principles in mind</li> <li>▪ Lack of continuity of</li> </ul>	<ul style="list-style-type: none"> <li>▪ Municipal Councillors and officials are concerned about the conservation of biodiversity in the municipal area, especially the potentially negative affects of the municipalities own activities</li> <li>▪ BM has joined the LAB Programme and signed the Durban Commitment</li> <li>▪ The Municipality is a member of the GCBC</li> </ul>	<ul style="list-style-type: none"> <li>▪ Incorporation of biodiversity into the IDP and performance management system of the Municipality</li> <li>▪ Create a position for an environmental practitioner in the office of the Municipal Manager</li> <li>▪ Biodiversity training</li> <li>▪ Biodiversity induction programme for new municipal councillors (physical observation of critically biodiversity issues)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cape Nature are prepared to host field trips in their reserves to showcase our biodiversity to Councillors and officials</li> <li>▪ SANBI (Municipal support programme) can provide training on request</li> <li>▪ DEADP are willing to provide technical advice</li> <li>▪ DEAT have an official based at the West Coast District Municipality who can provide technical advice and support to municipal officials.</li> <li>▪ The West Coast District Municipality are willing</li> </ul>

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<b>Priority issue</b>	<b>Causal factors</b>	<b>Existing/imminently planned interventions</b>	<b>Proposed actions to address issue</b>	<b>Potential partnerships and support</b>
2. Integration of biodiversity into municipal planning frameworks and processes	<p>representation on forums and attend meetings and workshops where biodiversity issues are tabled</p> <ul style="list-style-type: none"> <li>▪ The IDP does not directly address biodiversity or environmental management issues</li> <li>▪ The SDF does not adequately address the conservation of Bergrivier’s critical biodiversity and critical ecological support areas.</li> <li>▪ The LUMS of the Municipality lacks uniform and appropriate zonings to ensure the conservation of the</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Municipality is sensitive to conservation and a concerted effort is made by Officials and Councillors to consider biodiversity issues when making recommendations and decisions in terms LUPO.</li> <li>▪ Efforts have been made to prohibit development in conservation worthy areas and conditions that</li> </ul>	<ul style="list-style-type: none"> <li>▪ Development of policy guidelines to guide development in critical biodiversity and critical ecological support areas as well as other conservation worthy areas. (Terrestrial and aquatic).</li> <li>▪ Revision of the SDF to align it to the Biodiversity Sector Plan and CBA maps</li> </ul>	<p>to provide technical advice and support to municipal officials.</p> <ul style="list-style-type: none"> <li>▪ The GCBC offers potential partnership opportunities that can enhance the conservation of biodiversity in BM.</li> <li>▪ SANBI (Municipal support programme) can provide technical support and assist with the sourcing and securing funding for projects.</li> <li>▪ DEADP are willing to provide technical advice</li> <li>▪ DEAT have an official based at the West Coast District Municipality who can provide support</li> </ul>

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<b>Priority issue</b>	<b>Causal factors</b>	<b>Existing/imminently planned interventions</b>	<b>Proposed actions to address issue</b>	<b>Potential partnerships and support</b>
	<p>municipality's critical biodiversity and critical ecological support areas.</p> <ul style="list-style-type: none"> <li>▪ No in house environmental expertise to guide decision making</li> </ul>	<p>promote biodiversity conservation are frequently incorporated into decisions.</p> <ul style="list-style-type: none"> <li>▪ BM has already identified some areas as having conservation value and has rezoned them as appropriately as the existing LUMS will allow.</li> <li>▪ The Biodiversity Sector Plan and its accompanying CBA maps are available as a tool for planning and decision making</li> </ul>	<ul style="list-style-type: none"> <li>▪ Revision of LUMS to create appropriate zonings for critical biodiversity and other conservation worthy areas</li> <li>▪ Rezone critical biodiversity and other conservation worthy areas to appropriate zonings</li> </ul>	<ul style="list-style-type: none"> <li>▪ The West Coast District Municipality are willing to provide technical advice and support to municipal officials.</li> </ul>
3. Conservation and management of freshwater aquatic	<ul style="list-style-type: none"> <li>▪ The flow of the Berg River is reducing due to: <ul style="list-style-type: none"> <li>○ Climate change</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Working For Water and Land Care South Africa are cooperating to</li> </ul>	<ul style="list-style-type: none"> <li>▪ Eradication of alien vegetation (terrestrial and aquatic)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Land Care South Africa are willing to assist private land owners of</li> </ul>

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<b>Priority issue</b>	<b>Causal factors</b>	<b>Existing/imminently planned interventions</b>	<b>Proposed actions to address issue</b>	<b>Potential partnerships and support</b>
biodiversity	<ul style="list-style-type: none"> <li>o Alien vegetation</li> <li>o Upstream dams</li> <li>o Increasing and competing demands on fresh water resources</li> <li>▪ Water quality is being negatively affected by pollution from; <ul style="list-style-type: none"> <li>o Industries</li> <li>o Effluent from upstream waste water treatment plants belonging to other municipalities which runs into the Berg River</li> <li>o BM's own water treatment works run indirectly into the Berg River</li> <li>o Pesticides and fertilisers used by the agriculture sector</li> </ul> </li> </ul>	<p>remove alien plants in the middle and upper reaches of the Berg River, which will impact positively downstream</p> <ul style="list-style-type: none"> <li>▪ Working for Wetlands is removing alien plants in the Verlorenvlei and its tributaries, some of which fall within BM.</li> <li>▪ Hyacinths were recently eradicated in the Berg River through a cooperative partnership between BM and the Bobergrivier Bewarings Genootskap of Hopefield</li> <li>▪ BM makes use of purified waste water to irrigate some sport fields and makes it available for</li> </ul>	<ul style="list-style-type: none"> <li>▪ Promote the stocking of dams (private and municipal) with indigenous fish</li> <li>▪ Aquifer feasibility study and management plan</li> <li>▪ Develop and implement a water conservation strategy</li> <li>▪ Water pollution risk reduction plan</li> <li>▪ Facilitate the conclusion of a stewardship agreement with the Goedverwacht Community to care for the Platklouf River</li> </ul>	<p>agricultural land to eradicate alien vegetation in the riparian zones, but will require some contribution from the land owner</p> <ul style="list-style-type: none"> <li>▪ Working for Water will assist the Municipality with projects where the Municipality is willing to make a contribution.</li> <li>This assistance is mainly in the form of herbicides, but they also have a separate programme for aquatic invaders and biological control which the municipality can access.</li> <li>▪ Working for Wetlands will consider project</li> </ul>

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Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
	<ul style="list-style-type: none"> <li>o BM's waste disposal site in Piketberg is polluting an unnamed tributary of the Berg River</li> <li>o The sewer systems (French drains) in Aurora and Redlinghuys could be polluting ground water and the latter could even be polluting the Verlorenvlei.</li> <li>▪ Water quality is also being affected by; <ul style="list-style-type: none"> <li>o The destruction of the riparian zone of the Berg River and its tributaries which leads to sedimentation</li> <li>o Geomorphologic changes to the Berg</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>industrial use</li> <li>▪ BM is investigating the feasibility of putting solar geysers in subsidised housing in the future (Electricity savings =conservation of water resources)</li> <li>▪ BM monitors the effluent from all waste water treatment works and systems except the French drains and its effluent currently complies with blue drop standards</li> <li>▪ BM has a Water Services By-law in place to regulate water use, pollution of potable water supply systems,</li> </ul>		<p>proposals from the Municipality but do not consider projects with a minimum duration of three years.</p> <ul style="list-style-type: none"> <li>▪ The Expanded Public Works Programme (EPWP) can reimburse wage expenditure</li> <li>▪ DWAF can provide technical advice and has programmes that can be accessed by the municipality</li> <li>▪ Cape Nature Stewardship Programme</li> <li>▪ The GCBC is an established programme in the municipal area that can be tapped into.</li> </ul>



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Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
	<p>River and its tributaries which leads to sedimentation</p> <ul style="list-style-type: none"> <li>▪ BM's Disaster Management Plan has no risk reduction plan for water pollution</li> <li>▪ The WSDP does not acknowledge the role and importance of conserving biodiversity to ensure an adequate supply of suitable quality water.</li> </ul>	<p>and discharge and disposal of waste water</p> <ul style="list-style-type: none"> <li>▪ BM has a WSDP in place which recommends some measures to mitigate water pollution and promote water conservation which contribute to the conservation of biodiversity.</li> <li>▪ BM is in process of upgrading the Piketberg and Veldrif waste water treatment works. An EIA has already been done for the Piketberg works which adequately addresses the environmental impacts of the upgrading.</li> </ul>		

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Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
		<ul style="list-style-type: none"> <li>▪ BM's Disaster Management Plan acknowledges water pollution as a priority risk /hazard and has a risk preparedness plan in place for it</li> </ul>		
<p>4. Conservation, management and development of the Berg Estuary</p>	<ul style="list-style-type: none"> <li>▪ The Berg Estuary lacks formal conservation status</li> <li>▪ The Municipality lacks the capacity and resources to fulfil the role required of it in terms of its membership of the BEMF and the Berg Estuary Management Plan</li> <li>▪ There is insufficient regulation of the Berg Estuary by all stakeholders.</li> <li>▪ The Estuary and sea are being polluted</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cape Nature is facilitating the RAMSAR listing process</li> <li>▪ The BEMF is established</li> <li>▪ The Berg Estuary Management Plan is in place and the community are keen to get involved</li> <li>▪ BM has a Public Amenity by law that could be applied to the Berg River, even though it is not adequate to ensure the</li> </ul>	<ul style="list-style-type: none"> <li>▪ Finalise the formal conservation and list the Berg Estuary as a RAMSAR site*</li> <li>▪ Implement municipal by-laws to regulate the use of the Estuary*</li> <li>▪ Clean the Estuary and its surrounds*</li> <li>▪ Management of jetties and boat launching sites</li> <li>▪ Awareness campaigns*</li> <li>▪ Beach cleaning and</li> </ul>	<ul style="list-style-type: none"> <li>▪ WCDM</li> <li>▪ BEMF (Multiple stakeholder Forum)</li> <li>▪ Working for the Coast want labour intensive proposals from Municipalities to implement using local labour. These can include cleaning, rehabilitation, stabilisation, regeneration and</li> </ul>

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<b>Priority issue</b>	<b>Causal factors</b>	<b>Existing/imminently planned interventions</b>	<b>Proposed actions to address issue</b>	<b>Potential partnerships and support</b>
	<ul style="list-style-type: none"> <li>▪ The Estuary and beeches are dirty (littering etc)</li> <li>▪ Ineffective upstream management of the river reflects in the Estuary</li> <li>▪ Opportunistic development applications are being submitted that do not take cognisance of the sensitive nature of the Estuary.</li> </ul>	<p>long term conservation of the Estuary.</p> <ul style="list-style-type: none"> <li>▪ The West Coast District Municipality are in process of developing a Coastal Management Plan in terms of the ICM Act</li> </ul>	<p>beautification* (* BM can only take responsibility for these actions if they are assigned to it by WCDM in terms of the ICM Act)</p>	<p>beautification projects</p> <ul style="list-style-type: none"> <li>▪ Tourism and fishing sectors</li> <li>▪ The community</li> </ul>
5. Conservation and management of terrestrial biodiversity	<ul style="list-style-type: none"> <li>▪ Alien vegetation is invading critical biodiversity areas and also creates a fire hazard as it is much more susceptible to fire than natural vegetation</li> <li>▪ The community lack awareness on the conservation of biodiversity</li> <li>▪ Vehicular access and trampling of critical biodiversity areas, particularly along the coast</li> </ul>	<ul style="list-style-type: none"> <li>▪ BM is planning a botanical garden to showcase indigenous plants and their cultural history</li> <li>▪ Eendekuil aloe garden</li> <li>▪ BM does not have a formal policy but works according to a process and is strict when it comes to the removal of</li> </ul>	<ul style="list-style-type: none"> <li>▪ Encourage private land owners to conserve their critical biodiversity and ecological support areas through stewardship agreements, rezoning and declaration in terms of the Protected Areas Act.</li> <li>▪ Encourage private land owners to eradicate alien</li> </ul>	<ul style="list-style-type: none"> <li>▪ Department of Agriculture</li> <li>▪ Land care South Africa</li> <li>▪ DEADP</li> <li>▪ DEAT</li> <li>▪ WCDM</li> <li>▪ Working for Water</li> <li>▪ Working for the Coast</li> <li>▪ DWAF</li> <li>▪ The Community</li> <li>▪ Cape Nature</li> </ul>

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<b>Priority issue</b>	<b>Causal factors</b>	<b>Existing/imminently planned interventions</b>	<b>Proposed actions to address issue</b>	<b>Potential partnerships and support</b>
	<p>between Laaipelek and Dwardkersbos</p> <ul style="list-style-type: none"> <li>▪ Vandalism to measures put in place to conserve biodiversity such as the boardwalks between the housing developments north of Laaipelek and destruction of street trees</li> <li>▪ Lack of resources to enforcement the Public Amenities By-law</li> <li>▪ Natural vegetation is destroyed for agricultural development and by livestock</li> <li>▪ Natural vegetation is destroyed for mining purposes</li> <li>▪ Urbanisation is destroying urban biodiversity</li> <li>▪ There is no control or penalty for destruction of urban biodiversity</li> </ul>	<p>street trees</p> <ul style="list-style-type: none"> <li>▪ BM is planning a greening project for the entrance of Piketberg</li> <li>▪ BM has a Public Amenities By-law which lists prohibited behaviour within its own amenities, including public open spaces. It includes some provisions to prevent the destruction of biodiversity.</li> <li>▪ BM makes a concerted effort to plant street trees</li> <li>▪ BM is a member of a FPA</li> <li>▪ BM has entered into a stewardship agreement to conserve a portion of land in Redlinghuys</li> </ul>	<p>terrestrial vegetation</p> <ul style="list-style-type: none"> <li>▪ Eradicate alien terrestrial vegetation on municipal urban land</li> <li>▪ Urban cleaning and greening</li> <li>▪ Development of bird hides, especially in Velddrif</li> <li>▪ Clean and remove alien vegetation from Porterville streams</li> <li>▪ Awareness</li> <li>▪ Rates incentives for private land owners who conserve their biodiversity</li> <li>▪ Lobby for expansion of GCBC and West Coast Biosphere Reserve to include more of</li> </ul>	<p>Stewardship Programme</p> <ul style="list-style-type: none"> <li>▪ Organised Agriculture</li> <li>▪ GCBC</li> <li>▪ West Coast Biosphere Reserve</li> <li>▪ Western Cape Department of Economic Development and Tourism</li> </ul>

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Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
<p>6. The impact of waste and pollution on biodiversity</p>	<ul style="list-style-type: none"> <li>▪ Unlicensed waste disposal sites remain open for the dumping of garden refuse but access is not controlled</li> <li>▪ Unlicensed waste disposal sites are polluting the air, soil, ground water and rivers</li> <li>▪ There is a lack of community awareness on what constitutes hazardous waste and how to safely disposal of it</li> <li>▪ Lack of awareness of the impact of indiscriminate waste disposal (dumping and littering)</li> <li>▪ The Municipality lacks the capacity, resources and practical measures to enforce the Waste Management By-laws</li> <li>▪ Agriculture sector is a major</li> </ul>	<ul style="list-style-type: none"> <li>▪ BM has good Waste Management By-laws which if enforced will enable the Municipality to regulate access to waste disposal sites, off loading of waste, especially the dumping of hazardous waste, littering and separation of waste at source for recycling.</li> <li>▪ BM is busy with pilot study in Piketberg to determine its waste levels so that it can appoint a contractor to recycle its solid waste. It plans to roll this out through the</li> </ul>	<p align="center">Bergrivier</p> <ul style="list-style-type: none"> <li>▪ Waste recycling</li> <li>▪ Close and rehabilitate all unregistered waste disposal sites</li> <li>▪ Awareness campaigns, especially on constitutes hazardous waste and how to dispose of it</li> <li>▪ Air Pollution By-laws</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Community</li> <li>▪ DEADP</li> <li>▪ DEAT</li> <li>▪ WCDDM</li> <li>▪ Department of Agriculture</li> <li>▪ Western Cape Department of Economic Development and Tourism</li> <li>▪ Agriculture sector</li> <li>▪ Industrial sector</li> </ul>

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Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
	<p>contributor to air pollution through the burning of fields, crop spraying etc</p> <ul style="list-style-type: none"> <li>▪ Industries are a major contributor to air and water pollution</li> </ul>	<p>municipal area.</p> <ul style="list-style-type: none"> <li>▪ BM is planning to close its unlicensed waste disposal sites, beginning with the Velddrif site.</li> <li>▪ BM's Disaster Management Plan has a risk preparedness plan in place for air pollution</li> <li>▪ BM has an Integrated Waste Management Strategy in place and is in process of reviewing it</li> </ul>		
7. Lack of awareness	<ul style="list-style-type: none"> <li>▪ There is no concerted effort to promote environmental /biodiversity awareness</li> <li>▪ There is a no dedicated information source to guide the community on how to reduce their ecological footprint and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Libraries put up promotional material to promote the days on the national environmental calendar such as arbour day etc</li> <li>▪ BM has ward committees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Facilitate the implementation of targeted awareness programmes for specific sectors of the community such as the youth etc</li> <li>▪ Use ward committees to</li> </ul>	<ul style="list-style-type: none"> <li>▪ Community</li> <li>▪ Department of Environmental Affairs and Development Planning</li> <li>▪ National Department of Environmental Affairs</li> </ul>

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<b>Priority issue</b>	<b>Causal factors</b>	<b>Existing/imminently planned interventions</b>	<b>Proposed actions to address issue</b>	<b>Potential partnerships and support</b>
	<p>conserve their environment</p>	<ul style="list-style-type: none"> <li>▪ in place</li> <li>▪ BM issues a quarterly newsletter that can be used to promote biodiversity conservation</li> </ul>	<p>create awareness</p>	<ul style="list-style-type: none"> <li>▪ West Coast District Municipality</li> <li>▪ Department of Education</li> <li>▪ Department of Health</li> <li>▪ DWAF</li> <li>▪ Department of Agriculture</li> <li>▪ Cape Nature</li> </ul>
8. Mainstreaming biodiversity into local economic development	<ul style="list-style-type: none"> <li>▪ Our urban areas are not attractive and require greening and beautification</li> <li>▪ BM's parks section has limited capacity to effectively carry out greening programmes</li> <li>▪ The local tourism offices do not consciously focus on biodiversity</li> <li>▪ Lack of capacity within the Municipality to bring job creation opportunities to the area</li> </ul>	<ul style="list-style-type: none"> <li>▪ Local tourist information offices are in place and provide general information</li> <li>▪ BM is planting street trees to make urban areas more attractive</li> <li>▪ BM is planning a greening project for the entrance of Piketberg</li> <li>▪ BM has a LED Strategy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Biodiversity training for LED officials</li> <li>▪ Recycling projects</li> <li>▪ Alien clearing projects</li> <li>▪ Cleaning and greening of urban areas</li> <li>▪ Beach beautification and cleaning</li> <li>▪ Promote eco tourism</li> </ul>	<ul style="list-style-type: none"> <li>▪ Tourism sector</li> <li>▪ Community</li> <li>▪ Provincial Department of Economic Development</li> <li>▪ Provincial Department of Environmental Affairs and Development</li> <li>▪ Planning</li> <li>▪ DWAF</li> <li>▪ Department of Agriculture</li> <li>▪ West Coast District Municipality</li> </ul>

**BERGRIVIER MUNICIPALITY LOCAL BIODIVERSITY STRATEGIES AND ACTION PLAN  
(LBSAP)**

Priority issue	Causal factors	Existing/imminently planned interventions	Proposed actions to address issue	Potential partnerships and support
	<ul style="list-style-type: none"> <li>▪ Lack of entrepreneurial skills among the community</li> <li>▪ Lack of entrepreneurial opportunities within the community</li> </ul>			<ul style="list-style-type: none"> <li>▪ Cape Nature</li> <li>▪ SANBI</li> </ul>



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