# mainstreaming sustainability and optimising resource-use efficiency



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### 1. Strategic objective

The PGWC must include sustainability and resource-use efficiency in all the activities of all the provincial departments. Sustainability requires a different approach because it is not just about "doing things right" but also about "doing the right things".

Climate change is one of the biggest challenges facing communities locally and internationally. Its effect on the province's natural resources, namely land, water, air, soil and biodiversity, as well as ecosystem goods and services, will have a major impact on vulnerable economic sectors such as agriculture and communities (especially the poor communities) within the province.

### 2. Problem statement

The rapid development of the Western Cape is leading to widespread environmental degradation, biodiversity loss and a decrease in agricultural production. This is made worse by general water, energy, pollution and waste, and transport and other resource-use inefficiencies. All of these factors have a negative impact on economic and social conditions.

Particular problem areas include:

- I. Climate change mitigation: About 95% of the energy use in the province is generated by the burning of fossil fuels (coal and oil). This situation is totally unsustainable in the medium to long term due to the fact that fossil fuels are nonrenewable resources.
- 2. Water management: Already scarce water supplies are further strained by climate change (drying conditions), the negative impact of extreme weather on agricultural production and population growth.

- 3. Pollution and waste management: The province is faced with a high level of waste and air, land and water pollution because of an increase in the demand for, and production of, goods. This situation is made worse by overfilled landfills and inappropriate management of waste, as well as lack of available land, long licence approval time-frames and increased waste transport costs.
- 4. **Biodiversity management:** The biodiversity resources of the province are under threat due to the fast pace of urban and agricultural development as well as climate change.
- 5. Land-use management and agriculture: Threats to the land, water and air could cause food shortages, more people moving to towns and higher unemployment, for example.
- 6. **Built environment:** The built environment in the province is disadvantaged by poor land-use development and management practices as well as a legal framework that is not up to date.



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### 3. Plan to achieve outcomes

The key programmes for each of the six key policy priorities which we will implement are:

### 3.1 Climate change mitigation

### Energy efficiency programme

Key measures include promotion of energy efficiency in households, commerce, industry and all provincial offices, hospitals and schools; a green building programme and a green low-cost housing programme to increase the chances of the poor against climate change impacts.

### Renewable energy production programme

Key elements of a renewable energy programme include: development of a wind energy sector and energy production from alternative sources as well as net metering supported by a small-scale feed-in tariff to encourage small-scale renewable energy production.

### Air quality programme and climate change

The province needs to develop an integrated air quality management system, provincial and municipal air quality management plans and an effective and efficient provincial air quality monitoring network.

### Transport and climate change programme

Greenhouse gas emissions from this sector must be reduced by the promotion of energy-efficient public transport systems through increasing the use of all types of public transport as well as a shift of freight haulage from road to rail. Similarly, an assessment of options to reduce greenhouse gas emissions from the PGWC vehicle fleet will be undertaken.



### 3.2 Water management

- Improved catchment management and restoration
- Water efficiency measures such as recycling and reuse of wastewater, as well as retrofitting and grey water reuse options
- The development of a provincial integrated water resource management plan
- Development of a water management plan for agriculture

### 3.3 Pollution and waste management

- Implementation of pollution and waste management legislation and resource efficiency programmes
- Selected legislative reform
- Strategies focusing on how to reduce pollution and waste and encourage recycling
- Promotion of energy production from waste and landfill gas
- Facilitation of chemicals and waste management in industry and agriculture

### 3.4 Biodiversity management

- Legislative reform to align with national biodiversity management and protected areas management legislation
- Implementation of the National Protected Areas Strategy
- A strong focus on job creation programmes
- Expansion of the protected area biodiversity corridors
- A building and infrastructure maintenance and expansion programme
- A programme to promote nature conservation in South Africa

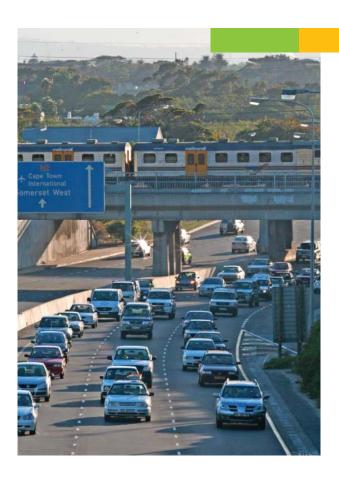
### 3.5 Land use management and agriculture

 In terms of land use management, the PGWC will minimise the impact of inappropriate land use change and encouarge sustainability and resourceuse efficiency.

- With regard to agricultural production, the PGWC will:
  - Develop a climate change plan for the agricultural sector
  - Undertake research on new and other crops, disease complexes and the use of resources
  - Raise awareness and share technical information with farmers, farm workers and other agricultural stakeholders
  - Promote environmental best practice within the agricultural sector

### 3.6 Built environment

- Spatial planning
- · Policy and legislative reform
- Design and control of integrated human settlements
- Design and control of elements of the built environment



## 4. Targets

Climate change mitigation	<ul> <li>Energy efficiency:         <ul> <li>Reduce the current gross provincial product (GPP) to carbon emission ration by 10% by 2014.</li> <li>Achieve a 5–10% electricity reduction in selected provincial buildings, including schools and hospitals.</li> </ul> </li> </ul>
	<ul> <li>Renewable energy production:</li> <li>Promote 15% of the electricity used in the province to be generated from renewable energy sources by 2014.</li> </ul>
	<ul> <li>Transport:         <ul> <li>Achieve a 13% modal shift (based on the modal split inbound to the City of Cape Town CBD) from private to public transport by 2014.</li> <li>Increase tonnage freight transported by rail, rather than road, by 10% by 2014.</li> <li>Retrofit 10% of existing public buildings with respect to energy and water consumption by 2014.</li> </ul> </li> </ul>
Water management	<ul> <li>Water efficiency:         <ul> <li>Develop and implement a provincial integrated water resource management plan to improve agricultural, industrial, commercial and household water use efficiency by 5–10% by 2014.</li> <li>Achieve a 5–10% water use reduction in selected provincial government buildings, including schools and hospitals.</li> </ul> </li> </ul>
Pollution and waste	Increase the percentage of waste diversion from landfill from the current 13% to 15% by 2014 (Metropolitan Municipality — City of Cape Town).
Biodiversity management	<ul> <li>Increase the conservation status of biodiversity in the province by:         <ul> <li>Increasing the maintenance of the current 50 (64%) conservation stewardship sites to 78 (100%) stewardship sites by 2012</li> <li>Rehabilitating land infested with alien vegetation through initial clearing of 40 000 ha per annum and follow-up clearing of 98 000 ha per annum</li> </ul> </li> </ul>
Land use management and agriculture	Ensure a 5% improvement in conservation farming practices by 2014.