

**STRATEGIC
ENVIRONMENTAL
ASSESSMENT**
FOR THE MANAGEMENT OF
ECOSYSTEM SERVICES
WITHIN THE CAPE WINELANDS
DISTRICT MUNICIPAL AREA

**ENVIRONMENTAL STRATEGY
& STRATEGIC ENVIRONMENTAL
MANAGEMENT PLAN**

DRAFT FOR PUBLIC REVIEW



MAY 2007

CSIR Report No:
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*for the management of Ecosystem Services within the
Cape Winelands District Municipal Area*

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1. BACKGROUND TO THE ENVIRONMENTAL STRATEGY

The Cape Winelands District Municipality wishes to ensure that the ecosystem services which provide the foundation for economic and human development in its area of jurisdiction, are effectively protected and managed into the long term future. Towards this end, the District Council commissioned the CSIR to undertake a Strategic Environmental Assessment (SEA) to develop a decision-aiding tool for the management of ecological resources within the District. The focus of this assessment is on formulating an Environmental Strategy and Implementation Plan to sustain ecosystem services.

The approach used in the study is an adaptation of Strategic Environmental Assessment (SEA) using relevant elements of the process and leaving out others. In this way, it is intended to prevent duplication of the Spatial Development Framework process. Key relevant elements of the SEA process that have been used in the process of strategy formulation include the use of visioning, scoping, the focus on strategic issues and the identification of environmental opportunities and constraints for development.

The Environmental Strategy and Implementation Plan are specifically directed at providing mechanisms for the maintenance and management of ecosystem services upon which the socio-economic development outlined in the SDF depends. The two processes and guiding documents are therefore inextricably linked.

Through this process, three reports will be produced:

- Scoping Report – completed;
- Strategy Report – this report is the 2nd draft, to be advertised for public comment in May 2007; and
- Strategic Environmental Management Plan (SEMP) – to be compiled in April 2007 and advertised for public comment in May 2007 in conjunction with the 2nd draft strategy.

The Scoping Report provides the *current status quo with regard to the management of ecosystem services* and information on the baseline situation. It also identifies the *trends* evident for each component of the ecosystem and the services provided by it, as well as the *pressures* being brought to bear on each of these components and services.

This report contains the Environmental Strategy which forms the *bridge* between the outcomes of the Scoping process¹ and the practical implementation plan – the Strategic Environmental Management Plan (SEMP). The purpose of this strategy is to provide a general strategic direction for environmental management within the Cape Winelands District Municipality for the next 8-10 years. A number of strategic actions are presented in this report although these are not listed in order of importance. However, the outcomes of an initial prioritisation exercise for the short- to medium- term, in which specific projects will be identified, will be presented in the SEMP.

Although primarily intended for use by the District Municipality, the Environmental Strategy and the SEMP will also be used to guide planning in the four local municipalities falling within the Winelands District.

Ownership and responsibility for implementation of the Environmental Strategy and SEMP reside with the District Municipality. It is the intention of the District Municipality to interact widely with other planning initiatives in its area, to ensure alignment, rationalise resources and maximise synergies for the protection and maintenance of ecosystem services in the district. This interaction is provided for within the Environmental Strategy.

2. VISION FOR THE SEA

A draft vision for the SEA was formulated by representatives of the Cape Winelands District Municipality and the CSIR project team, based on discussions held at a visioning workshop on 14 February 2006 in Worcester. This workshop was attended by representatives of the Cape Winelands District Municipality and the Local Municipalities in the District. Various stakeholders and the general public, were given the opportunity to comment on this vision and propose changes if there was a need. The Environmental Strategy is based on providing a mechanism for achieving this vision, and therefore assumes broad based acceptance and adoption of the vision as it stands.

¹ The outcomes of the Scoping Process are documented in the Scoping Report (July 2006), currently in Draft form, produced for the first phase of the SEA.

BOX 1: VISION

The Cape Winelands District Municipality, together with its key stakeholders, effectively manages human activities to ensure the maintenance and enhancement of key ecosystem services within the area, for the benefit of all, now and into the future.

3. STATUS QUO OF ECOSYSTEM SERVICES IN THE CWDM AREA²

Unless otherwise indicated and referenced in the text, the information presented in the remainder of this strategy report, is derived from five specialist studies conducted to inform the SEA, viz. studies on the ecosystem services provided by biodiversity, water, air quality, land and soil, and the governance context³.

3.1 Human activities being practiced in the CWDM Area

The most prominent economic activities in the Cape Winelands District are the practice of agriculture, primarily wine and deciduous fruit production, and tourism, which centres on the wine industry, the natural environment and cultural history in the District. Other less prominent economic activity includes forestry, mining, manufacturing and construction.

Agricultural activity comprises not only viticulture and deciduous fruit production, but also vegetable, poultry and essential oil production, and aquaculture⁴. A wide range of manufacturing industry operates in the District including food and tobacco, textiles, leather tanning, wood and paper products, chemicals, metals, machinery, household and medical supplies, motor vehicles and jewellery production. The tourism sector in the District offers

² 'CWDM Area' is used in this report to indicate the Cape Winelands District Municipal Area.

³ Specialist studies:

- (i) Kotze, I., Forsyth, G. and O'Farrell, P.J. (2006) Biodiversity Study. Specialist Study for the SEA for the Management of Ecosystem Services within the Cape Winelands District Municipality Area. CSIR, Stellenbosch.
- (ii) Saayman, I. and Leaner, J. (2006). Water Resources. Specialist Study for the SEA for the Management of Ecosystem Services within the Cape Winelands District Municipality Area. CSIR, Stellenbosch.
- (iii) Oosthuizen, R. and John, J. (2006). Air Quality. Specialist Study for the SEA for the Management of Ecosystem Services within the Cape Winelands District Municipality Area. CSIR, Pretoria.
- (iv) Lanz, J. (2006). Land and Soil. Specialist Study for the SEA for the Management of Ecosystem Services within the Cape Winelands District Municipality Area. CSIR, Stellenbosch.
- (v) Fortuin, H.H. (2006). Governance Context. Specialist Study for the SEA for the Management of Ecosystem Services within the Cape Winelands District Municipality Area. CSIR, Stellenbosch.

⁴ Cape Winelands District Information Booklet, (2005). www.capewinelands.gov.za

a diverse mix of opportunities in health and wellness, food and wine, eco-and adventure tourism, conferencing, and history and cultural heritage categories.

3.2 Ecosystem services

Ecosystem services are the processes and conditions of natural ecosystems that support human activity and sustain human life⁵. They encompass all the benefits we derive both directly and indirectly from the functioning of ecosystems⁶. The Millennium Ecosystem Assessment identified ecosystem services as falling into the following four major categories, provisioning services (e.g. food, water), regulating services (e.g. climate, water, disease regulation), cultural services (e.g. spiritual, aesthetic), and supporting services (e.g. primary production, soil formation).

The ability of the ecosystem to provide these benefits that support human life and development in the Cape Winelands District, is directly dependent on the health of the ecosystem. There are several pressures on the ecosystem in the region that are already limiting, or that may in the future limit the ability of the ecosystem to continue providing these services. These pressures need to be carefully managed and controlled to prevent the loss of the critical services provided by the ecosystem. The Environmental Strategy and the SEMP will provide a substantive foundation and practical mechanism for managing these pressures, in the context of providing opportunities for sustainable economic development and the improvement of the quality of life of people in the District.

Ecosystem services are not provided in isolation of each other, since they derive from the ecosystem which is made of interdependent parts, viz. soil, water, plant and animal life. For example, the soil plays an important role in regulating water in the environment through controlling runoff and infiltration of rainwater. This in turn affects the volumes and quality of water that enters streams. So it would be meaningless to try to ensure good water quality in the river system without considering soil protection mechanisms and issues such as chemical use in agriculture.

Apart from the life sustaining benefits that humans derive from ecosystem services, there are sound economic reasons for maintaining these services. These economic reasons provide a framework for decision making about priorities and trade-offs, when looking at perceived benefits that humans derive from the ecosystem services⁷. It is easier for decision makers to prioritise ecosystem maintenance activities when these are seen in the

⁵ Daily, G. (ed) (1997) *Nature's Services - Societal Dependence on Natural Ecosystems*, Island Press, Washington.

⁶ Costanza, R., d'Arge, R., deGroot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O' Neill, R. V., Paruelo, J., Raskin, R. G., Sutton, P., and vandenBelt, M. (1997). The value of the world's ecosystem services and natural capital. *Nature*. 387:253-260.

⁷ Boyd JW and HS Banzhaf. 2005. Ecosystem services and government accountability: The need for a new way of judging nature's value. *Resources*, Summer 2005, 16-19.

light of the socio-economic benefit they provide to humans. Most of the benefits derived from ecosystem services can be measured and include, for example, the volume and consistency of flow of clean water or flood control, that are provided by healthy wetlands in a system (see table below for further examples). Using the example of wetlands, there is an economic case for protecting wetlands and the ecosystem services that they provide, because if they are damaged or filled in and their services are lost, people will have to bear the costs of additional water purification (both infrastructure and intensive water treatment) as well as the loss of property and potentially life, as a result of flood damage. This example illustrates how maintaining the ecosystem service *avoids* certain costs from being incurred. Another way of looking at the economic value of ecosystem services is to consider *opportunity costs*⁸. For example, if the soils in some areas of the Cape Winelands District were to be irreparably damaged by salinisation, then the opportunity cost would be the economic value of any future agricultural production from these soils, which could be substantial if projected over a long period of time into the future. Any attempts made to *restore* the ecosystem services provided by the damaged soils, if this were possible, also have an associated economic cost⁹.

⁸ *ibid*
⁹ *ibid*

The *ecosystem services* provided to the people of the Cape Winelands District include:

SOURCE OF ECOSYSTEM SERVICE	BENEFITS DERIVED
Biodiversity	<ul style="list-style-type: none"> § Pollination of crops and natural vegetation, from which humans derive fruits and other foods. § Provision of useful species for beneficial uses such as flower harvesting, wood for fuel, food, medicines. § Cycling and movement of nutrients, soil stability and soil carbon storage, providing fertile and non-eroding soils and the potential for carbon trading. § Control of the vast majority of potential agricultural pests prevents loss of livelihood from damage of crops. § Climate stabilisation and moderation of weather extremes and their impacts, providing liveable climates. § The provision of aesthetic beauty and intellectual stimulation in a place that tourists want to visit.
Water	<ul style="list-style-type: none"> § Purification of water and attenuation of floods by wetlands. § Supply of water by rivers and from ground water for drinking, irrigation and manufacture of products. § Breakdown or dilution of waste in rivers. § Provision, by rivers and freshwater bodies, of places of recreational, aesthetic, spiritual or religious value¹⁰.
Air (quality)	<ul style="list-style-type: none"> § Provision of clean air that is beneficial for humans and the ecosystem, including the conversion of CO₂ to oxygen by plants through photosynthesis.
Land and soil	<ul style="list-style-type: none"> § Provision of nutrients, water and physical rooting support for agricultural crops. § Provision of nutrients, water and physical rooting support for natural vegetation, as well as other roles that soil plays in natural ecosystem functioning, such as a medium for completion of insect life cycles. § Role played in hydrology and water supply, which includes infiltration of precipitation, runoff control and recharge of groundwater. § Attenuation of environmental pollution, which is a specific role of soil in land fills and land farming, but also more generally in attenuating the potential effects of air pollution on surface and groundwaters. § Provision of construction and road building material in the form of sand and laterite gravel that are sourced from the soil profile.

Current status and pressures on ecosystem services

Currently, the overall trend in the health of ecosystem services in the Cape Winelands District is a gradual deterioration, which without the necessary interventions, will lead to a crisis in the ability of these ecosystem services to support the sustainable economic

¹⁰ River Health Programme (2005). *State-of-River Report: Greater Cape Town's Rivers*. Department of Water Affairs and Forestry, Pretoria. ISBN: 0-620-34026-6.

development and improved quality of life that the Municipality strives for in its area of jurisdiction.

Human activity in the CWDM Area is imposing pressures on the continued ability of the ecosystem to deliver ecosystem services into the future. A brief overview of these pressures follows, in relation to each component of the ecosystem.

SOURCE OF ECOSYSTEM SERVICE	TRENDS AND PRESSURES
Biodiversity	<p>The integrity of the two biomes (Cape Floristic Kingdom and Succulent Karoo) represented in the CWDM Area, is significantly threatened by fragmentation, transformation and degradation. This means that the ecological viability of the biodiversity in the area is compromised and could lead to the total loss of species and/or habitat types. Due to the incredibly diverse biodiversity of the Cape Winelands, the formal protected areas network is unable to protect an adequate representation of biodiversity, leaving many areas of high conservation value outside formally protected areas.</p> <p>Current activities adding to this increasing fragmentation, transformation and/or degradation include:</p> <ul style="list-style-type: none"> § development on marginal or vulnerable land (e.g. vineyards on steep slopes (foothills)) by investors in the Stellenbosch area; § the expansion of vegetable and fruit production onto virgin land (into fynbos areas); § the rapid spread of urban development; § poor fire management; § sand and gravel mining; and § increasing infestation by alien vegetation. <p>The increasing incidence of uncontrolled fires and the inappropriate use of fire as a management tool is causing a potential permanent loss of species and damage to the soil e.g. lower infiltration capacity and higher risk of erosion. In addition, potential species loss is promoted by non-compliance with the required burn strategies in areas where fire is necessary to preserve biodiversity (e.g. where “design with nature” type housing developments have been approved in biodiversity-rich landscapes).</p>
Water	<p>There is a <i>rapid expansion of inappropriate agricultural development</i> in spite of the problems associated with manifesting climate change (e.g. crops with high water needs such as fruit). Inappropriate agricultural development is that which has a high water demand in an area that could experience significant water stress in the future.</p> <p>The <i>demands for increased urban water supply</i> by the Cape Town Metropolitan Area. There is a general sustained increased demand for water supply (from within and outside the Area) and this could increase the demand for inter-catchment water transfers which have ecological effects, and could place pressure on ground water resources as well, particularly without the necessary water demand management practices in place.</p> <p>Water quantity and quality in the CWDM Area is being negatively affected by</p>

SOURCE OF ECOSYSTEM SERVICE	TRENDS AND PRESSURES
	<p>agricultural activities along certain rivers (e.g. Plankenbrug River), by increasing abstraction of surface and groundwater resources, increasing salinity concentrations in certain rivers (e.g. the Kogmanskloof River), infestation by alien vegetation that consumes high volumes of water, a general increase in the pollution of rivers (e.g. the Breede River and Plankenbrug River) due to factors such as stormwater and wastewater discharges, and by the effects of climate change that are reducing river flow in the area. This has a significant ecological effect and the delivery of goods and services by the rivers in the area is decreased.</p>
Air quality	<p>The <i>air quality</i> in the CWDM Area is gradually <i>deteriorating</i> and <i>regulation and monitoring</i> of air quality is <i>fragmented and inconsistent</i>.</p> <p>There is a general trend towards increased industrial emissions (including those from brickworks), an increase in the application of agrochemicals including pesticides (including occasional aerial spraying due to the rapid expansion of agricultural development) and increased greenhouse gas and particulate emissions from the increasing incidence of veld fires in the region, and the burning of crop residues. In addition, a soup of potentially hazardous chemicals are emitted from the burning of materials such as tyres, in vineyards. Many households are still dependent on wood and paraffin for heating and cooking and these fuels emit volatile organic compounds, nitrogen oxide and particulate matter.</p> <p>Some of these conditions could be exacerbated by climate change, due to an increase in the number of days on which temperature inversions occur and the resulting entrapment of air pollution at low levels in the atmosphere with risks to health and the environment. An increased incidence of berg wind conditions could also result in more frequent veld fires.</p> <p><i>Low priority</i> is given to increasing the <i>use of renewable energy</i> which avoids the atmospheric emissions associated with dominant forms of energy production in South Africa, such as burning carbon-based fuels (e.g. coal).</p>
Land and Soil	<p>The soils in the CWDM Area are of a low agricultural potential and therefore further damage to the land could significantly threaten agricultural production.</p> <p><i>Soil and land degradation</i> is evident in the CWDM Area. In particular, <i>salinisation</i> of soils has occurred in some areas, such as the lower Breede River Valley as a result of poor agricultural practices. In many other areas, soils and surface and ground water are being <i>contaminated</i> by irrigation with untreated winery and industrial effluent (wine and other industries), by substandard releases from waste water treatment works, leachate from poorly designed and operated landfill sites, and poorly designed and maintained on-site domestic sanitation. The microbial life in the soil is significantly reduced by conventional agrochemical based agricultural practice, which is the most common form of farming in the Cape Winelands District. In addition, an increased and inappropriate frequency of fires can lead to accelerated soil erosion.</p> <p><i>High potential agricultural land is being lost to changes in land use</i> i.e. rezoned for inappropriate land uses such as housing, golf course development, high</p>

SOURCE OF ECOSYSTEM SERVICE	TRENDS AND PRESSURES
	<p>income residential estates, and certain types of tourism development. The productive capacity of the land is also being negatively affected by poor rehabilitation after mining in areas where mining is being / has been practiced.</p> <p>Climate change (hotter and drier climate) will cause a further <i>reduction in land capability and crop suitability</i>.</p>

Balancing these many trends and pressures, however, is a range of existing initiatives that encourage and facilitate sound management of land use and development. A brief outline of these initiatives is introduced in section 3.4 below.

3.3 Governance context

Sound governance is a vital determinant of the effectiveness of any action the District Council may take in protecting and managing ecosystem services in the CWDM Area. The statutory and constitutional obligations¹¹ of the Cape Winelands District Municipality require that it integrates social, economic and environmental factors into the planning, implementation and evaluation of its decisions. The governance context within which the District Municipality is tasked to fulfil these obligations is briefly outlined in Appendix A. The Environmental Strategy must be aligned with, and also inform the governance context, to ensure that it is practicable.

3.4 Existing initiatives available for the protection of ecosystem services

It is important that the District Council collaborates with existing established initiatives in the Western Cape, or specifically in the CWDM Area, for the protection and management of ecosystem services. Given the demands on the Municipality's resources, it is essential that it does not duplicate the efforts of initiatives that are already well established and in some cases have been operational and successful for several years. It is recommended that the Municipality benefits from various levels of interaction with these initiatives and assists in rationalising the contributions made for the protection and management of ecosystem services.

Examples of relevant existing initiatives are summarised in Appendix B, and recommendations have been made in the Environmental Strategy for specific collaborative

¹¹ Section 24 of the Bill of Rights in The Constitution, 1996 (Act 108 of 1996). Schedules 4 and 6 of The Constitution (Act 108 of 1996), Section 83 (3) of the Municipal Structures Act, 1998 (Act 117 of 1998, as amended)

efforts that could be made by the District Municipality to achieve synergies in protecting and managing ecosystem services in the CWDM Area.

4. ENVIRONMENTAL STRATEGY

The point of departure of this Environmental Strategy is the *current status quo with regard to the management of ecosystem services*, as documented in the Draft Scoping Report. This report provides information on the baseline situation, and also on the *trends* evident for each component of the ecosystem and the services provided by it, as well as the *pressures* being brought to bear on each of these components and services¹².

The challenge for the CWDM is to create a mechanism that will enable it to effectively manage these trends and pressures, to prevent irreversible damage to the ability of the ecosystem to provide the essential services that underpin the economy and quality of life of people living in the District.

In response to the trends and pressures identified by stakeholders, the CWDM, specialists and the CSIR project team, a number of *strategic goals* and specific *objectives* have been formulated to ensure that ecosystem services are effectively protected and managed in the Cape Winelands District. The achievement of each of these objectives is subject to a range of *opportunities and constraints* presented by the current spatial and development planning context, the realities of governance in the Province and in the District Municipality and local municipalities, and the levels of environmental awareness of both officials and the public in the District.

The Environmental Strategy provides a *practical framework* for the identification of specific actions (to be presented in the Strategic Environmental Management Plan (SEMP)) that must be taken into account to ensure that ecosystem services are protected and judiciously managed.

Further detail is provided below on each of the components of the Environmental Strategy.

- 4.1 *Strategic Goals*
- 4.2 *Objectives*
- 4.3 *Opportunities and constraints*
- 4.4 *Strategic actions required to achieve the strategic goals and objectives (i.e. what is needed to overcome constraints or realise opportunities)*

¹² See Appendix 3, Draft Scoping Report for the SEA for the Management of Ecosystem Services in the Cape Winelands District Municipal Area, July 2006

4.1 Strategic Goals

A number of *strategic goals* were identified based on the outcomes of the two key stakeholder workshops and the specialist studies in the Scoping phase. The strategic goals are as follows:

- A. Sustainable economic development;
- B. Strong institutional capacity, collaboration and law enforcement;
- C. Sound land use and development planning and resource management;
- D. High level of stakeholder capacity manifested through the availability of information, awareness and education; and
- E. Effective waste management, pollution control and service provision.

The purpose of these goals is to guide the maintenance and enhancement of ecosystem services in the District Municipality Area into the long term future. The dependency of sustainable economic development and the alleviation of poverty, on the maintenance of ecosystem services within the Cape Winelands District is at the root of the Environmental Strategy.

4.2 Objectives

A range of objectives have been formulated based on the outcome of the stakeholder workshops. These objectives should be met in order for the strategic goals to be realised. The objectives, responding to each of the Strategic Goals, for the protection and management of ecosystem services, are as follows:

Strategic Goal: Sustainable economic development

- a) Producers in the CWDM Area benefit from the comparative and competitive advantages of ecologically sound production in the CFK.
- b) The nature-based tourism potential of the CWDM Area is realised.
- c) Long-term ecological, economic and social sustainability is assured in the agricultural sector through large-scale substantive adoption of crops, products and farming methods suitable to dryer and hotter climates.

Strategic Goal: Strong institutional capacity, collaboration and law enforcement

- d) The capacity (education, leadership and resources) exists within the CWDM Area and major stakeholders in the District, to ensure that planning, economic development and other activities are sustainable and there is an understanding of the importance of maintaining ecosystem services.
- e) Environmental legislation (e.g. for control of alien vegetation) is effectively enforced and environmental programmes currently underway in the District are substantively supported by the CWDM.
- f) Land use planning and decision-making is coordinated at local municipality level and between various spheres of government.

Strategic Goal: Sound land use and development planning and resource management

- g) Local authorities and others responsible for development planning and decision-making in the CWDM are aware of the potential social, economic and environmental implications of all forms of human activities and consider these in their planning and decision-making in a participatory way that ensures that the ecosystem services of the CWDM Area are maintained and enhanced.
- h) SDFs and IDPs provide a sound strategic planning framework that facilitates the sustainability of all new development in the CWDM Area.
- i) An effective, well- resourced and coordinated fire-management, emergency and disaster prevention programme is implemented across the CWDM Area.
- j) The energy needs of the CWDM Area are provided for by a district level integrated energy plan that comprises both conventional electricity supply, as well as the increased development of alternative energy solutions to provide a greater level of self sufficiency in the economy of the District.

Strategic goal: High level of stakeholder capacity manifested through the availability of information, awareness and education

- k) All key stakeholders within the District are informed of the vital role of the area's ecosystem services in supporting economic development.
- l) Farmers and other land users are aware of the effects of ecosystem fragmentation and alien infestation on the provision of ecosystem services, as well as the influence of climate change on the type of crops that should be cultivated.

Strategic goal: Effective waste management, pollution control and service provision

- m) Waste management and air pollution prevention within the District is undertaken in a coordinated and integrated way.
- n) Adequate water supply, waste water treatment and storm water management infrastructure is an integral part of all new development and is maintained in good working order to prevent contamination of natural waters

4.3 Opportunities and Constraints

A range of opportunities and constraints to achieving the objectives have been identified based on the inputs of stakeholders, the specialist studies, existing planning frameworks, and existing initiatives that affect the management and maintenance of ecosystem services in the CWDM Area. The initiatives span the entire range of organisations from central government to local NGO involvement, and can all be drawn upon to assist the District Municipality in its endeavours to maintain the ecosystem services in the area in a healthy state. The opportunities and constraints relating to the achievement of the objectives in the Strategy have been accounted for in the recommended strategic actions.

4.4 Strategic Actions

The strategic actions required to achieve the goals and objectives outlined above, are presented in the following pages. After stakeholder review of this report, these actions will be taken forward and translated into practical projects in the SEMP.

STRATEGIC GOAL: Sustainable Economic Development

Objective:

- a) Producers in the CWDM Area benefit from the comparative and competitive advantages of ecologically sound production in the CFK.

Opportunities	Constraints
<ul style="list-style-type: none"> • The actual and potential contribution of ecosystem services in the CWDM Area to the regional economy. • Existing requirements that encourage sustainable development practices in certain economic sectors (e.g. agriculture). • Existing enabling legislation for the maintenance and management of ecosystem services. • Growth that is occurring in certain industries reliant on the Cape Floristic Kingdom e.g. in the sales of flowers.¹³ • Growth in the demand for high quality wine and deciduous fruit.¹⁴ 	<ul style="list-style-type: none"> • External demands on the ecosystem services in the CWDM Area e.g. from Cape Town. • Climate change (i.e. hotter, drier conditions and increased climatic variability), which could have a negative effect on agricultural production • The undermining of ecological resilience that is currently occurring. • The dependency of sustainable land and soil management practices on the prosperity of agricultural production.

Strategic Actions

- Engage with all relevant agencies, NGOs, the commercial sector and the public sector (including farmers) in the management of ecosystem services. The CWDM should actively partner with- and support initiatives such as the CapeNature Conservation Stewardship Programme.
- Support the agricultural sector with the aim of improving its economic viability and environmental sustainability. This will reduce pressure from land use changes and encourage good agricultural practices.
- Increase the understanding of future external demands on the ecosystem services of the Cape Winelands in the short, medium and long term (by the City of Cape Town and others) and include this information in all future urban development planning.
- Assist and support farmers, their labour and others working in the agricultural value chain, in diversifying their products, services and markets, with due consideration to sustainability issues.
- Provide incentives for producer accreditation with internationally recognised systems such as EurepGAP and the Integrated Production of Wine (IPW), to encourage farmers to adopt sustainable agricultural practices.
- Support agricultural industry initiatives that are developing proactive strategies to take account of future changes, including climate change. These include the wine industry's Vision 2020 and strategies of the Deciduous Fruit Producers Trust.
- See Objective C for recommendations concerning climate change

¹³ Cape Winelands District Municipality (2006) Cape Winelands District: Growth and Development Strategy: Second Draft, 13 November 2006.

¹⁴ *ibid*

STRATEGIC GOAL: Sustainable Economic Development

Objective:

b) The nature-based tourism potential of the CWDM Area is realised

Opportunities	Constraints
<ul style="list-style-type: none"> • The intrinsic value of ecosystem services in the CWDM Area provides opportunities for eco-tourism. • The significant potential for growth in the tourism market in the Cape Winelands,¹⁵ • The track record of the tourism sector, of which ecotourism is one of the five key sub-sectors, as an important contributor to economic growth in the Cape Winelands between 2000 and 2004.¹⁶ • The diversification, by a number of farmers, into agri-tourism products.¹⁷ • The recognition in certain policy and planning documents (e.g. the draft Growth and Development Strategy (Cape Winelands, 2006)) of tourism as a key sector for driving economic growth and poverty reduction in the Cape Winelands District. • The foreign market tourism demands for scenery value for money, peace and quiet and animals, amongst other elements.¹⁸ • There are a number of international institutions that can supply vital experience and knowledge (e.g. world benchmarks) to the development of sustainable tourism policies and initiatives in the Cape Winelands (e.g. World Tourism Organisation; World Travel and Tourism Council, and the Worldwide Fund for Nature and Tourism Concern that has developed sustainable tourism principles). • An opportunity exists to explore collaboration with the commercial sector in the development of nature-based tourism policies and initiatives. 	<ul style="list-style-type: none"> • The current undermining of ecosystem services on which ecotourism depends. • Reduction of the image and identity of towns¹⁹ and the scenic value of natural resources, due to inappropriate urban development and erosion. • The lack of a clear eco-tourism strategy in the Growth and Development Strategy, the IDP and the SDF.

¹⁵ Cape Winelands District Municipality (2006) Cape Winelands District: Growth and Development Strategy: Second Draft, 13 November 2006.

¹⁶ ibid

¹⁷ ibid

¹⁸ ibid

¹⁹ Cape Winelands District Municipality (2005) Cape Winelands District Municipality: Spatial Development Framework, compiled by MCA.

Strategic Actions

- Engage the provincial and local tourism authorities, local eco-tourism operators, conservation agencies (such as Cape Nature), environmental Non-Governmental Organisations (NGOs), and other relevant stakeholders in developing unique and innovative eco-tourism products for the CWDM Area.
- Ensure that there is a clear and accessible strategy for the development of sustainable eco-tourism in the area which is incorporated into the final Growth and Development Strategy, the IDP, the SDF, and any future tourism planning and marketing. This strategy should particularly benefit low income communities and be linked to poverty reduction strategies.
- Contain urban sprawl and protect valuable natural and historical resources, on which tourism depends, through the development of guidelines for the delineation of urban edges by the local “B” municipalities, based on the Spatial Planning Categories developed by the District.
- Ensure that urban development does not compromise key resources for nature based tourism. This will require the identification and demarcation of no-go areas to prevent fragmentation of the scenic and historic quality of the landscape, and value of cultural and natural resources for tourism. Feed this information into the identification of Spatial Planning Categories, in the Spatial Development Framework (SDF) and the Integrated Development Plan (IDP).
- Implement, across the District Municipality, the “Guidelines for Assessing Land Use Management Applications in Rural Areas” (Cape Winelands District Municipality, 2006), particularly those related to holiday resorts and accommodation.

STRATEGIC GOAL: Sustainable Economic Development

Objective(s):

- c) **In the long-term the economic activities within the Winelands adapt to dryer and hotter climates, thereby ensuring that climate change does not threaten their sustainability.**

Opportunities	Constraints
<ul style="list-style-type: none"> • The encouragement of good agricultural practices by market forces and the requirements of certain international certification systems. • The programmes and initiatives already being implemented in the area to promote sustainable agricultural practices e.g. the Land Care Programme and the Biodiversity and Wine Initiative. • South Africa has ratified the United Nations Framework Convention on Climate Change (1997), the Montreal Protocol and the Kyoto Protocol (2002). 	<ul style="list-style-type: none"> • The dependency of sustainable land and soil management practices on the prosperity of agricultural production. • The reduction of land capability due to the effects of climate change and therefore the decrease in potential for alternative crop production. • The limited area of land available for agricultural production in the Cape Winelands District Municipality. • The generally very poor soil conditions in the District that limit the type of crops that can be cultivated. • The lack of awareness or acknowledgement of the risks of climate change (e.g. reduced rainfall and crop losses).²⁰ • Lack of clear strategies in key planning documents (e.g. IDP) that begin to take explicit cognisance of the predicted effects of climate change on local economic development.

Strategic Actions

- Ensure that research is initiated that addresses the gaps in current knowledge on implementing sustainable agricultural practices in the Cape Winelands.
- Initiate a coordinated response to climate change between key stakeholders (e.g. Department of Agriculture, organised agriculture, initiatives such as LandCare and the Biodiversity and Wine Initiative, as well as certification bodies) to ensure the sustainability of the economic base of the Cape Winelands into the future.
- Play a leading role in convening a District level climate change forum that brings together all economic sectors to find ways of protecting ecosystem services in a changing climate.
- Provide substantive support to Local Economic Development (LED) offices to assist producers in moving up the agricultural value chain i.e. produce value added products and services. Campaign to develop a 'Product of Origin' culture and label for the Cape Winelands area, offering the competitive advantage of environmentally sustainable production.
- Ensure that producers and LED offices in the area have access to recent research on appropriate farming methods, crop selection and innovative product development, within the constraints of the land capability under climate change.
- Ensure that the predicted effects of climate change inform the strategies and action plans

²⁰ Stakeholder Scoping Workshop, 16 May 2006, Worcester

contained in the IDP, the SDF, the Growth and Development Strategy, the economic marketing strategy for the area, the investment opportunities promoted for the area and all business support programmes initiated in terms of the 2006/07 draft IDP.

- Raise awareness amongst politicians, officials, economic sectors and local communities, of the implications of climate change for the Cape Winelands District.
- Implement a broad information and education programme on climate change and its implications for the Cape Winelands through the local media.

STRATEGIC GOAL: Strong institutional capacity, collaboration and law enforcement

Objective:

- d) The capacity (i.e. education, leadership and resources) exists within the CWDM and major stakeholders in the District, to ensure that planning, economic development and other activities are sustainable and there is an understanding of the importance of maintaining ecosystem services.

Opportunities	Constraints
<ul style="list-style-type: none"> • The enabling legislation for effective environmental management that is currently in place. • The establishment of Catchment Management Agencies that is in progress. • The guidelines that have been developed for assessing land use management applications in the rural areas within the District. • The initiatives and programmes (e.g. Biodiversity and Wine Initiative) are being implemented, through various external partnership arrangements, to promote sustainable land use within the District. • The Integrated Development Plans (IDPs) and Spatial Development Frameworks that exist for all the “B” municipalities within the District. 	<ul style="list-style-type: none"> • Inadequate cooperation, communication and coordination between various spheres of government and between Local (B) and District (C) municipalities. • Inadequate communication and cooperation between municipalities and other stakeholders. • The uncertainty around the roles and responsibilities for the management of ecosystem services. • Inadequate or unenforced by-laws for the maintenance of ecosystem services. • The lack of resources and human capacity within government for effective environmental management. • The inconsistency in the extent to which the environment is effectively considered in IDPs and SDFs within the District. • The lack of fine-scale biodiversity data for the region.

Strategic Actions

- Facilitate a clear understanding, amongst key stakeholders, of the roles and responsibilities between the various spheres of government, concerning the maintenance of ecosystem services within the District.
- Facilitate the participation of key stakeholders in the development and the implementation of the spatial planning categories (for the proposed Boland Biosphere Reserve) and the corresponding land use guidelines that are to be formulated for the District.
- Ensure that the principles of cooperative governance and stakeholder engagement are implemented in the maintenance and enhancement of ecosystem services, through, *inter alia*, the facilitation of a District-level environmental task team that comprises representatives of the District, the “B” municipalities and key stakeholders.
- Promote interaction and the sharing of learning and information between stakeholders, particularly those in the environmental sector, through, for example, the environmental task team proposed above.
- Guide environmental management within the District with an effective environmental and heritage policy and action plan. This Environmental Strategy and the Strategic Environmental Management Plan are integral to such a policy and action plan.

- Ensure that the available information contained in a variety of current initiatives (e.g. information on the status of the Berg River and tributaries from the River Health Programme; and both spatial and non-spatial information on wetlands in the area from the Working on Wetlands Programme) informs the activities of the District Municipality, the environmental task team and other key stakeholders in the area.
- Participate in the establishment and operation of Catchment Management Agencies in the District.
- Develop internal capacity (a designated environmental officer for the CWDM Area) to assess all planning applications from an ecosystem service perspective, as well as providing biodiversity inputs into the SDF's of local municipalities and the bioregional framework.
- Develop a capacity building programme for politicians, officials and key stakeholders that focuses on promoting a concise, well-illustrated description of key ecosystem services within the CWMD Area, an understanding of why these are important, threats to ecosystem services in the region, environmental priorities in the CWDM Area, and tools and guidelines available that could assist in planning and decision-making in line with environmental priorities.

STRATEGIC GOAL: Strong institutional capacity, collaboration and law enforcement

Objective:

- e) Environmental legislation (e.g. for control of alien vegetation) is effectively enforced and environmental programmes currently underway in the District are substantively supported by the CWDM.**

Opportunities	Constraints
<ul style="list-style-type: none"> • The revision of by-laws and their enforcement, is identified as a strategy for achieving the principle of sustainable development in the Draft Cape Winelands District Growth and Development Strategy (Cape Winelands District Municipality, Draft 2006). • The Draft Cape Winelands District Growth and Development Strategy explicitly recognises the need for the revision and enforcement of by-laws related to sustainable development. • The designation of the Winelands Cultural Landscape as a National Heritage Site and its status on UNESCO's tentative world heritage list. • The District Municipality is submitting an application to UNESCO for the declaration of a biosphere reserve within the Cape Winelands. • There are currently a number of environmental initiatives in the area, to which the CWDM could possibly link and share resources (e.g. the Working for Water and Working on Fire Programmes, the LandCare project and the Biodiversity and Wine Initiative). 	<ul style="list-style-type: none"> • No umbrella environmental management or sustainable development policy for the District to guide sustainable use, enhancement and conservation of the environment. • Lack of resources and human capacity within government for effective environmental management and the development of regulations and frameworks.²¹ • Lack of resources and human capacity for the monitoring and enforcement of legislation. • Unenforced or inadequate by-laws for the maintenance of ecosystem services. There is also a lack of and/or weak enforcement of planning controls.²² • Uncertainty around the roles and responsibilities in terms of legislation for the management of ecosystem services e.g. air and land. • Lack of consistency in environmental by-laws between the "B" municipalities. • Absence of a District policy for heritage preservation.²³

Strategic Actions

- Ensure that there is a comprehensive understanding amongst the politicians and relevant officials in the District, of the national, provincial and local legislation relating to the maintenance and enhancement of ecosystem services (including the preservation of natural areas) in the area.
- Facilitate a working understanding of environmental legislation amongst key stakeholders in the District.

²¹ Stakeholder Scoping Workshop, 16 May 2006, Worcester

²² *ibid*

²³ *ibid*

- Clarify the roles and responsibilities, in terms of environmental and other legislation, of various spheres of government for the management of ecosystem services. Bring inconsistencies and ambiguities in the legislation to the attention of the relevant government authorities.
- Develop an overarching environmental and heritage policy for the District in consultation with key stakeholders. The heritage policy should respond to the designation of the Winelands Cultural Landscape as a National Heritage Site and its status on UNESCO's tentative world heritage list. It should also be developed and implemented in collaboration with the provincial (Heritage Western Cape) and national (South African Heritage Resources Agency) heritage authorities charged with the management of the cultural landscape.
- Ensure that the District's by-laws relating to the maintenance and enhancement of ecosystem services in the area effectively address the threats to these services and promote their conservation and sustainable use.
- Develop the internal capacity required for the enforcement of environmental and conservation (e.g. the National Heritage Resources Act) legislation, linking to the activities of the Municipal Health Services Directorate. Ensure that enforcement of this legislation takes place.
- Provide a guiding framework for local municipalities to review their by-laws to reflect the importance of maintaining ecosystem services, and to facilitate a greater degree of consistency in environmental by-laws between the "B" municipalities.

STRATEGIC GOAL: Strong institutional capacity, collaboration and law enforcement

Objective:

- f) Land use planning and decision-making is coordinated at local municipality level and between various spheres of government

Opportunities	Constraints
<ul style="list-style-type: none"> • Existing institutions such as the District Intergovernmental Forum provide the opportunity for coordination between the local municipalities and the District. • The environmental strategy and action plan currently being developed presents an opportunity to coordinate and focus environmental management in the District. • Catchment Management Agencies (CMAs) are in the process of being established. • It is recognised in the Draft Cape Winelands District Growth and Development Strategy (Cape Winelands District Municipality, Draft 2006) that the District has a critical stakeholder coordination role. • One of the 10 objectives contained in the Draft Cape Winelands District Growth and Development Strategy is that of institutional networking, cooperation and communication. The need to institutionalise communication channels between the sectors is highlighted. • The Draft Cape Winelands District Growth and Development Strategy proposes the development of the Cape Winelands Economic Development Council which will have representation from government, business, labour, civil society and other stakeholders. An environmental management sub-committee that will meet on a quarterly basis is also proposed. 	<ul style="list-style-type: none"> • Inadequate cooperation, communication and coordination between various spheres of government and between Local (B) and District (C) municipalities. • Inadequate communication and cooperation between municipalities and other stakeholders²⁴. • The uncertainty around the roles and responsibilities for the management of ecosystem services. • The lack of resources and human capacity within government for effective environmental management.

Strategic Actions

- Ensure that the principles of cooperative governance and stakeholder engagement are implemented in the maintenance and enhancement of ecosystem services, through, *inter alia*, the facilitation of a District-level environmental task team that comprises representatives of the District, the “B” municipalities and key stakeholders. This task team could take the form of the Environmental Management Sub-Committee which is proposed in terms of the Draft Cape Winelands District Growth and Development Strategy (Cape Winelands District Municipality, Draft 2006) or be linked to this forum.

²⁴ Stakeholder Scoping Workshop, 16 May 2006, Worcester

- Continue the current interactions and regular meetings that occur between those involved in planning at the District and local authority levels. Ensure that at least one official involved in environmental management (or an aspect thereof) from each institution, attends these meetings.
- Develop internal capacity (including a designated environmental officer for the CWDM Area) for the enforcement of environmental legislation and the coordination of environmental activities between the local authorities.
- Clarify the roles and responsibilities, in terms of environmental and other legislation, of various spheres of government for the management of ecosystem services. Bring inconsistencies and ambiguities in the legislation to the attention of the relevant government authorities.

STRATEGIC GOAL: Sound land use / development planning and resource management

Objective:

- g) Local authorities and others responsible for development planning and decision-making in the CWDM Area are aware of the potential social, economic and environmental implications of all forms of human activities and consider these in their planning and decision-making in a participatory way, that ensures that the ecosystem services of the CWDM Area are maintained and enhanced.**

Opportunities	Constraints
<ul style="list-style-type: none"> • Certain enabling legislation for effective environmental management is in place, which requires municipalities to develop a range of environmental management tools. • There is a commitment to the principles of sustainable development in the planning and policy documents for the country, the province and the district. • Catchment Management Agencies are in the process of being established. Local authorities have an opportunity to participate in these. • Guidelines have been developed for assessing land use management applications in the rural areas within the District²⁵. • Several initiatives and programmes are being implemented, through various partnership arrangements, which promote sustainable land use within the District e.g. CAPE LandCare, Working for Water. • Good information / data exist on some ecosystem services (e.g. wetlands) and in certain areas (e.g. the biodiversity foundation information from the <i>Putting Biodiversity Plans to Work Project</i> done for the Drakenstein Municipality²⁶). • There are several documents and guidelines available to assist decision-makers, local authorities and practitioners in incorporating sustainability concerns into decision-making (e.g. The Fynbos Forum Ecosystem-Specific Guidelines for 	<ul style="list-style-type: none"> • There is uncertainty around roles and responsibilities for the management of ecosystem services. • The responsibility for strategic planning is assigned to the District Municipalities in terms of the Municipal Systems Act (No 32 of 2000), however, there is no department for this within the CWDM. Land use planning, environmental planning and strategic planning are therefore being mixed at the “B” municipality level²⁸. • There is no integrated environmental policy for the District. • By-laws for the maintenance of ecosystem services are often unenforced or inadequate. There is also a lack of and/or weak enforcement of planning controls²⁹. • There is a lack of resources and human capacity within government for effective environmental management and sound land use planning. • Lack of knowledge / data on certain aspects e.g. no applied research has been done on the ecosystem as a whole, there is little data on air quality and no continuous or long term monitoring being done to collect data, and a lack of fine-scale biodiversity planning. • Current lack of awareness in planning of the fundamental role of ecosystem services in supporting economic development³⁰. • There is increasing pressure on the

²⁵ MCA (2006) Guidelines for Assessing Land Use Management Applications in Rural Areas: Document 3 – Final Document, prepared for the Cape Winelands District Municipality.

²⁶ See CD: Botanical Society of South Africa, CapeNature (n.d.) *Supporting land-use planning and decision-making in threatened ecosystems and special habitats*, CD produced as part of the Putting Biodiversity Plans to Work project, funded by the Critical Ecosystem Partnership Fund through the CAPE programme.

<p>Environmental Assessment in the Western Cape²⁷).</p> <ul style="list-style-type: none"> • There are a number of international institutions that can supply vital experience and knowledge (e.g. world benchmarks) for the development of sustainable tourism policies and planning initiatives in the Cape Winelands (e.g. World Tourism Organisation; World Travel and Tourism Council, and the Worldwide Fund for Nature and Tourism Concern that has developed sustainable tourism principles). • The District Municipality is submitting an application to UNESCO for the declaration of a biosphere reserve within the Cape Winelands. • Both the Berg and the Breede River Estuaries are of high conservation value (ranked 2nd and 18th in terms of importance out of approximately 25 • The Environmental Strategy and the Strategic Environmental Management Plan can assist decision-makers and other stakeholders in the incorporation of environmental aspects into planning and development in a more transparent and cohesive way. 	<p>resource base of the CWDM Area and a declining quality of ecosystem services (e.g. loss of biodiversity due to urban sprawl and cultivation, increasing pollution of rivers due to stormwater and wastewater discharges, and a perceived gradual deterioration of air quality).</p> <ul style="list-style-type: none"> • Although the Berg and the Breede River Estuaries are of high conservation value, the ecological functioning of these estuaries is increasingly threatened by reduced flow resulting from increased water abstraction (from surface and groundwater resources), the spread of alien vegetation, the effects of climate change, as well as by poor water quality caused by poor irrigation practices.
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Strategic Actions

<ul style="list-style-type: none"> • Refine existing conservation priority maps (e.g. CAPE maps), that focus on broad areas of significance, through fine-scale mapping that focuses on priority areas. This should be undertaken through a collaborative process, working with partners such as CapeNature's fine scale planning process, to derive a map that includes the following³¹: <ul style="list-style-type: none"> – Rivers, wetlands, groundwater-dependent communities and estuaries – Viable and/or connected Critically Endangered and Endangered ecosystems – Any area in irreplaceable habitat that is important for biodiversity conservation, as identified by a systematic conservation plan – Any other special habitats that may contain a unique signature of species e.g. dolomite outcrops, quartz or ferricrete patches – Any habitat that contains rare or threatened plant and animal species – Natural habitat in an ecological corridor or along a vegetation boundary (including frontal dune

²⁷ De Villiers, C., Driver, A., Clark, B., Euston-Brown, D., Day, L., Job, N., Helme, N, Holmes, P., Brownlie, S. and Rebelo, T (2005) *Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape*. Fynbos Forum c/o Botanical Society of South Africa: Conservation Unit, Kirstenbosch, Cape Town.

²⁸ Stakeholder Scoping Workshop, 16 May 2006, Worcester

²⁹ ibid

³⁰ ibid

³¹ CapeNature does not support activities that may negatively impact on the habitats listed below ³¹ (as stated by Dr K.C.D. Hamman, for acting CEO, letter concerning CapeNature's commenting role in EIA and development applications, 17 August 2006). It is therefore suggested here that these habitats are explicitly included in the spatial mapping proposed.

systems)

– Formally declared Mountain Catchment Areas

- Guide environmental management within the District with an effective environmental and heritage policy and action plan. This Environmental Strategy and the Strategic Environmental Management Plan are integral to such a policy and action plan.
- Ensure that environmental management in the District is informed by the available information contained in a variety of current initiatives (e.g. information on the status of the Berg River and tributaries from the River Health Programme; and both spatial and non-spatial information on wetlands in the area from the Working on Wetlands Programme).
- Ensure that planning and decision-making is undertaken in accordance with defined spatial planning categories (SPC) that have been developed with the participation of the conservation sector (e.g. CapeNature representatives) and for which corresponding land use guidelines have been formulated.
- Ensure that development applications and environmental assessment's are evaluated according to an agreed set of environmental criteria within the District, that include the area's SPC guidelines, as well as guidelines that have been developed on a national or provincial scale (e.g. the Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape and the Provincial Urban Edge Guideline³²).
- Ensure that land use planning takes into account the potential air quality effects of all planned new development, using the requirements and provisions of the Air Quality Act (Act 39 of 2004) as the basis for such inputs.
- Facilitate an understanding of national, provincial and local environmental legislation amongst politicians, officials and key stakeholders and inform decision-making of the ecosystem priorities identified in terms of this legislation and important environmental initiatives³³ in the area, for example, the Biodiversity Act (Act 10 of 2004), The National Environmental Management Act (Act 107 of 1998), the Air Quality Act (Act 39 of 2004), the National Spatial Biodiversity Assessment (DEAT and SANBI), and the Western Cape Provincial Spatial Development Planning Framework (Provincial Government of the Western Cape, 2005), in which threatened ecosystems and ecological corridors with accompanying policy recommendations, were identified at a provincial scale.
- Develop a capacity building programme for politicians, officials and key stakeholder that focuses on promoting a concise, well-illustrated description of key ecosystem services within the CWMDA, an understanding of why these are important, threats to these services in the region, the ecosystem service priorities in the CWDM Area, and tools and guidelines available that could assist in planning and decision-making in line with these priorities. Ensure that such a capacity building programme uses and builds on existing resources and uses existing fora e.g. the Drakenstein Natural Resources Reference group. Also ensure that the programme is aligned with any relevant national or provincial programmes.

³² Department of Environmental Affairs and Development Planning (2005) Provincial Urban Edge Guideline. Produced by Enviro Dinamik.

³³ Many of the key Acts and policies related to ecosystem services are listed in the specialist studies undertaken as part of this SEA.

STRATEGIC GOAL: Sound land use / development planning and resource management

Objective h:

h) SDFs and IDPs provide a sound strategic planning framework that facilitates the sustainability of all new development in the CWDM Area

Opportunities	Constraints
<ul style="list-style-type: none"> • There is a commitment to the principles of sustainable development in the planning and policy documents for the country, the province and the district. • Several initiatives and programmes are being implemented, through various partnership arrangements, which promote sustainable land use within the District e.g. CAPE, LandCare, Working for Water. Information from these initiatives can be used in the formulation of IDP's and SDF's. • Good information/ data exists on some ecosystem services (e.g. those provided by wetlands) and in certain areas (e.g. the foundation biodiversity information from the <i>Putting Biodiversity Plans to Work Project</i>, done for the Drakenstein Municipality³⁴). • The District Municipality is submitting an application to UNESCO for the declaration of a biosphere reserve within the Cape Winelands. The core, buffer and transitional areas of the biosphere reserve can guide future integrated development planning and spatial development frameworks in the District. • The Western Cape Provincial Spatial Development Framework promotes a bioregional planning approach to achieve continuity in the landscape and to maintain important natural areas and ecological processes³⁵. • The Environmental Strategy and the Strategic Environmental Management Framework can provide information into IDP and SDF processes within the 	<ul style="list-style-type: none"> • The extent to which the environment is effectively considered in IDPs and SDFs within the District varies but coverage is generally limited. • The responsibility for strategic planning is assigned to the District Municipalities in terms of the Municipal Systems Act, however, there is no department for this within the CWDM. Land use planning, environmental planning and strategic planning and therefore being mixed at the "B" municipality level³⁶. • There is no integrated environmental policy for the District. • There is a lack of resources and human capacity within government for sound environmental management and land use planning³⁷. • There is a lack of knowledge / data on certain aspects e.g. no applied research has been done on the ecosystem as a whole, there is little data on air quality and a lack of fine-scale biodiversity data. • Current lack of awareness in planning of the fundamental role of ecosystem services in supporting economic development³⁸.

³⁴ See CD: Botanical Society of South Africa, CapeNature (n.d.) *Supporting land-use planning and decision-making in threatened ecosystems and special habitats*, CD produced as part of the Putting Biodiversity Plans to Work project, funded by the Critical Ecosystem Partnership Fund through the CAPE programme.

³⁵ Provincial Government of the Western Cape (2005) *Western Cape Provincial Spatial Development Framework*, prepared by CNdV Africa.

³⁶ Stakeholder Scoping Workshop, 16 May 2006, Worcester

³⁷ Stakeholder Scoping Workshop, 16 May 2006, Worcester

³⁸ *ibid*

District.	
Strategic Actions	
<ul style="list-style-type: none"> • Facilitate a consistent approach to the consideration of environmental issues in the formulation of IDP's and SDF's in the District, thereby guiding environmental management within the District, potentially through the development and implementation of an environmental and heritage policy and action plan. • Develop future SDF's in line with the spatial planning categories (SPCs) defined in terms of the bioregional planning framework. • Ensure that environmental management in the District is informed by the available information contained in a variety of current initiatives (e.g. information on the status of the Berg River and tributaries from the River Health Programme; and both spatial and non-spatial information on wetlands in the area from the Working on Wetlands Programme). • Ensure that planning and decision-making is undertaken in accordance with defined spatial planning categories that have been developed with the participation of the conservation sector (e.g. CapeNature representatives) and for which corresponding land use guidelines have been formulated. • Inform District-level planning and decision-making of the ecological priorities identified by local municipalities. • Provide training within the local and District municipality on the effective integration of environmental issues into SDF and IDP's. 	

STRATEGIC GOAL: Sound land use / development planning and resource management

Objective:

- i) **An effective, well- resourced and coordinated fire-management, emergency and disaster prevention programme is implemented across the CWDM Area**

Opportunities	Constraints
<ul style="list-style-type: none"> • A Fire Services Business Plan has been compiled by the CWDM. • A study has been undertaken on the hazards within the District that include fire³⁹. • The Working on Fire Programme aims to develop a three-year training programme that can supply well trained fire fighters and managers to the Forestry Industry, Fire Protection Associations, conservation agencies and local municipalities, while maintaining an elite fighting corps as a national disaster management resource. • The Department of Water Affairs and Forestry have developed guidelines to assist in the formation of Fire Protection Agencies (PFA) and the drafting of FPA business plans.⁴⁰ 	<ul style="list-style-type: none"> • The insufficient resources for fire services in the District⁴¹. • The lack of capacity for fire control and response⁴² • The lack of detailed Disaster Management Plans for the district. • The potential promotion of species loss by non-compliance with the required burn strategies on properties where fire is necessary to preserve biodiversity, particularly where “design with nature” type housing developments have been approved in biodiversity-rich landscapes. • The lack of explicit coordination with Cape Nature in the formation and implementation of the fire business plan. • The lack of sufficient attention to proactive fire prevention strategies (based on an understanding of current fire trends in the area) in the fire business plan.

Strategic Actions

- Ensure that disaster prevention and management within the District is informed by a proactive, resourced management strategy that is formulated with the participation of all key stakeholders and incorporates provisions for fire prevention as well as all other risks. Several studies, plans and programmes are already in place and should be integrated under the umbrella of the strategy.
- Guide fire prevention and management according to detailed, resourced Disaster Management Plans that are informed by the strategy.
- Involve all key stakeholders (e.g. Cape Nature, land owners, communities on communal lands and fire fighting associations) in the development of disaster management plans and the fire business plan.
- Give sufficient attention to proactive strategies for fire prevention (based on an

³⁹ Africon (2005) Towards Disaster Management Plans for the Cape Winelands District Municipality: Hazard Identification, Vulnerability Assessment and Risk Prioritisation in the Cape Winelands District Municipality: Version1, prepared for the Cape Winelands District Municipality

⁴⁰ Department of Water Affairs and Forestry (2003), *The Veldfire Bulletin*, DWAF, November 2003.

⁴¹ Stakeholder Scoping Workshop, 16 May 2006, Worcester

⁴² *ibid*

understanding of current trends and the causes of fires in the area) in all strategy and planning documents, as well as to suppression planning.

- Encourage the formation of Fire Protection Agencies (FPA) within the District in terms of the National Veld and Forest Fire Act of 1998, and participate in their activities, possibly forming an umbrella FPA at the District level.
- Inform all fire management strategies and business plans of the ecological conditions that affect fire risks within the District. Such strategies and plans should also be informed by, *inter alia*, social and economic conditions in the area, as well as an assessment of the effects of past fires in terms of social, economic and environmental impacts⁴³.

⁴³ Department of Water Affairs and Forestry (2003), *The Veldfire Bulletin*, DWAF, November 2003.

STRATEGIC GOAL: Sound land use / development planning and resource management

Objective:

- j) The energy needs of the CWDM Area are provided for by a district level integrated energy plan, that comprises both conventional electricity supply, as well as the increased development of alternative energy solutions to provide a greater level of self sufficiency in the economy of the District.

Opportunities	Constraints
<ul style="list-style-type: none"> • Commitment to the principles of sustainable development in developing planning and policy. • South Africa has ratified the United Nations Framework Convention on Climate change (1997), the Montreal Protocol and the Kyoto Protocol (2002). • South Africa is part of the Air Pollution Information Network in Africa (APINA), a network of scientists, policymakers, NGO's and the private sector in Africa. • The National Energy Efficiency Strategy was developed in 2005 and aims to increase energy efficiency in the country by 12% by 2015 (Department of Minerals and Energy, 2005). • The Government's vision, policy and strategic goals and objectives for promoting and implementing renewable energy in South Africa are presented in the White Paper on Renewable Energy (Republic of South Africa, 2004) • An opportunity exists to explore collaboration with the commercial sector in the development of policies and initiatives that promote the use of renewable energy options in the Cape Winelands. 	<ul style="list-style-type: none"> • The District does not have an overarching energy policy. • The District's IDP does not explicitly address issues related to the use of renewable energy and in general, there is inadequate planning around renewable energy in the District. Only about 200 households in the District use solar energy for cooking, heating, or lighting. • Widespread use of renewable energy sources is still in its infancy in South Africa, coupled with low levels of knowledge and awareness.

Strategic Actions

- Develop an Integrated Energy Plan for the District that incorporates practical alternative and renewable energy options.
- Develop guidelines for energy-efficient housing and amend by-laws to reflect the new emphasis on renewable energy e.g. all new housing development to be at least of energy efficient design.
- Raise awareness amongst key stakeholders of the need to conserve energy and the alternative and renewable energy options available.
- Initiate pilot projects to test and encourage the use of alternative renewable energy sources in the District.
- Encourage the use of renewable energy sources by introducing incentives such as subsidies on smoke-free paraffin appliances, or solar heating and/or cooking systems.

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Where appropriate explore collaboration with the private, public, commercial and NGO sectors in promoting the use of renewable energy sources.

STRATEGIC GOAL: High level of stakeholder capacity (available information, awareness, education)

Objective:

- k) All key stakeholders within the District are informed of the vital role of the area's ecosystem services in supporting economic development.**

Opportunities	Constraints
<ul style="list-style-type: none"> • There are currently a number of environmental initiatives in the area (e.g. the Working for Wetlands Programme) that can be approached to assist with training in some way and/or to provide information for the development of training material. <p>Excellent material has been developed for some areas within the District that can be used in training courses. For example, the information pack for the Drakenstein Municipality, entitled Supporting Land-use Planning and Decision-making in Threatened Ecosystems and Special Habitats, produced by the Botanical Society of South Africa and CapeNature as part of the Putting Biodiversity Plans to Work project, funded by the Critical Ecosystem Partnership Fund through the CAPE programme.</p> <p>There are existing institutional structures that could provide opportunities for capacity building and shared learning, for example, Drakenstein's Natural Resources Reference Group.</p> <p>There are several institutions in the District that can be approached to assist with training (e.g. the University of Stellenbosch).</p> <p>A number of guidelines exist that can assist in training, for example the Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape (De Villiers, C.,2005) and the Integrated Environmental Management Information Series published by DEAT.</p>	<ul style="list-style-type: none"> • Lack of knowledge of the consequences of various activities on the environment and the risks to human health associated with degraded environments. • The lack of awareness or acknowledgement of the risks of climate change (e.g. reduced rainfall and crop losses)⁴⁴ • The lack of resources and human capacity within government for effective environmental management. • Lack of knowledge / data on certain aspects e.g. no applied research has been done on the ecosystem as a whole, there is little data on air quality and a lack of fine-scale biodiversity planning. • Current lack of awareness in planning of the fundamental role of ecosystem services in supporting economic development⁴⁵.

⁴⁴ Stakeholder Scoping Workshop, 16 May 2006, Worcester

⁴⁵ *ibid*

Strategic Actions

- Develop an ongoing, well conceived and resourced environmental education programme that comprises, for example, workshops, courses, one-on-one sessions, presentations to key sectors and the development of distance learning material. The courses and material should be adapted to the needs of different stakeholders and developed with their participation. Where possible the District should link up and share resources with the capacity building and education efforts of the local authorities and other government departments such as the Department of Water Affairs and Forestry (DWAF). The overall programme should facilitate an understanding, amongst the politicians, officials, key economic sectors, communities and others of, *inter alia*, the following:
 - The fundamental importance of the ecosystems services provided by land and soil, biodiversity, air and water within the Cape Winelands District;
 - The types of ecosystems within the District;
 - The key ecosystem features and services within the District and the priorities for conservation;
 - The current threats (including climate change) to the maintenance and enhancement of ecosystems services provided by land and soil, biodiversity, air and water within the Cape Winelands District;
 - The principles of sustainable development;
 - The national, provincial and local environmental legislation;
 - The roles and responsibilities of various spheres of government in the maintenance of ecosystem services within the District;
 - The environmental management tools and processes that are available;
 - The current initiatives, guidelines and key reports that could assist stakeholders in planning and development in the area, while maintaining the key ecosystem services;
 - The integration of environmental issues into IDP's and SDF's at the local and District levels;
 - The ecological conditions that affect fire risks within the District and the effects of past fires on the social, economic and biophysical environment;
 - The implications of climate change on key sectors in the District and the appropriate farming methods, crop selection and innovative product development, within the constraints of land capability under climate change; and
 - Monitoring, the interpretation of results and reporting.
- Ensure that environmental education and awareness is an integral part of the key strategic planning processes for the District.

STRATEGIC GOAL: High level of stakeholder capacity (available information, awareness, education)

Objective:

- l) Farmers and other land users are aware of the effects of ecosystem fragmentation and alien infestation on the provision of ecosystem services, as well as the influence of climate change on these services and the type of crops that should be cultivated.**

Opportunities	Constraints
<ul style="list-style-type: none"> • There are currently a number of environmental initiatives in the area (e.g. the Working for Wetlands Programme) that can be approached to assist with training in some way and/or to provide information for the development of training material. • There are existing courses and programmes in the region that can assist in awareness raising and education concerning the environmental impacts of agricultural activities. For example the LandCare awareness programme that aims to promote, <i>inter alia</i>, an understanding of the factors that lead to the unsustainable use of resources in agriculture.⁴⁶ • There are a number of existing initiatives that provide guidelines to farmers for the management of environmental impacts. For example, the Integrated Production of Wine Guidelines (ARC Infruitec-Nietvoorbij, 2006)⁴⁷, for the management of the environmental impacts of the wine industry). <p>There are existing institutional structures and programmes that could provide opportunities for capacity building and shared learning concerning environmental management and farming, for example, the Small Farmer Support Programme proposed in the IDP (Cape Winelands Municipality, draft 2006/2007).</p> <p>There are several institutions in the District that can be approached to assist with training (e.g. the University of Stellenbosch).</p>	<ul style="list-style-type: none"> • The lack of awareness or acknowledgement of the risks of climate change (e.g. reduced rainfall and crop losses).⁴⁸ • The lack of resources and human capacity within government for effective environmental management activities. • Lack of knowledge / data on certain aspects e.g. there is little data on air quality and a lack of fine-scale biodiversity planning. • Lack of awareness and education regarding the maintenance of quality environments, including the effects of infestation by alien vegetation on the nature and frequency of fires and consequences for soil.

⁴⁶ Available at: www.nda.agric.za/docs/Landcarepage/landcare.htm, downloaded 21/12/06

⁴⁷ Available at: <http://www.ipw.co.za>

⁴⁸ Stakeholder Scoping Workshop, 16 May 2006, Worcester

Strategic Actions

- Raise awareness amongst politicians, officials, economic sectors and local communities, of the implications of climate change for the Cape Winelands District.
- Implement a broad information and education programme on environmental management and farming, linking with existing and proposed education and farmer support initiatives in the area.
- Provide substantive support to LED offices to assist producers in moving up the agricultural value chain i.e. produce value added products and services. Campaign to develop a 'Product of Origin' culture and label for the Cape Winelands area, offering the competitive advantage of environmentally sustainable production
- Ensure that producers and LED offices in the area have access to recent research on appropriate farming methods, crop selection and innovative product development, within the constraints of the land capability under climate change.

STRATEGIC GOAL: Effective waste management, pollution control and service provision

Objective:

m) Waste management and pollution prevention within the District is undertaken in a coordinated and integrated way.

Opportunities	Constraints
<ul style="list-style-type: none"> • The CWDM is in the process of developing a Waste Management Plan for the district as a whole⁴⁹ and which addresses solid waste and waste water (sewage). • The District has a Water Services Development Plan for its DMA⁵⁰. • The short life span remaining of many waste disposal facilities in the Province presents an opportunity for the regionalisation of waste disposal facilities, a process in which District municipalities could take a leading role. • The possibility of collaboration with the private, public, commercial and NGO sectors in promoting waste minimisation, re-use and recycling. • Each municipality is required to include an air quality management plan as part of its integrated development plan. • South Africa is part of the Air Pollution Information Network in Africa (APINA). • South Africa has ratified the United Nations Framework Convention on Climate change (1997), the Montreal Protocol and the Kyoto Protocol (2002). • Stellenbosch has by-laws, not only to declare the town as a smoke-free zone, but also to regulate dust emissions from building operations and excavations and to prohibit heavy industrial emissions in town. • Drakenstein municipality has a municipal sub-committee that addresses air quality complaints. 	<ul style="list-style-type: none"> • The current lack of an integrated waste management plan for the district. • The Western Cape Provincial IDP (Provincial Government of the Western Cape, 2005) highlights a possible looming waste management crisis in the Province, due to the very short lifespan remaining on many waste disposal facilities. • Backlogs in service delivery and infrastructure provision, resulting in contamination of water resources by substandard effluent and associated health risks^{51,52}. • Water quality and quantity, and soil quality, are threatened by waste water discharges. One of the sources of soil contamination in the District, is irrigation with effluent discharged from e.g. wine cellars. • No formal waste collection and disposal facilities in the rural areas.⁵³ • Lack of data on air quality due to the lack of monitoring of criteria pollutants that are normally used as indicators. • Inability to determine the 'adaptive capacity' of the atmosphere in the area i.e. the quantity of pollution the air can still absorb before guidelines will be exceeded, due to the lack of monitoring. • There is inadequate consideration of air quality issues in the IDP for the District. • The transboundary pollution that is likely to occur, in certain weather conditions, from the City of Cape Town. • The lack of clarity on how to handle smoke caused by fires due to inconsistency in the by-laws applicable to Stellenbosch and to Franschoek.

⁴⁹ Cape Winelands District Municipality (n.d.) *IDP/Review – 2006/2007: Draft*, Available at: <http://www.pms.gov.za/website/default.aspx>, downloaded 18 December 2006.

⁵⁰ *ibid*

⁵¹ Stakeholder Scoping Workshop, 16 May 2006, Worcester

⁵² Africon (2005) *Towards Disaster Management Plans for the Cape Winelands District Municipality: Hazard Identification, Vulnerability Assessment and Risk Prioritisation in the Cape Winelands District Municipality: Version1*, prepared for the Cape Winelands District Municipality

⁵³ *ibid*

	<ul style="list-style-type: none"> • The confusion concerning the roles and responsibilities between the local and district municipalities, in terms of the National Environmental Management: Air Quality Act (No 39 of 2004). • There is no formal agreement between the Department of Agriculture and the Department of Environmental Affairs and Tourism (DEAT) to coordinate activities that may cause pollution and odours (e.g. the burning of waste) in peri-urban areas (these mostly comprise farmland). • Not all local municipalities within the District have the required designated air quality officer.
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Strategic Actions

<ul style="list-style-type: none"> • Facilitate the development of comprehensive Waste Management Plans (WMP) by the local municipalities that encourage all new developments, particularly those in rural areas, to separate waste on site and to recycle waste, as proposed in the Guidelines for assessing Land Use Management Applications in Rural Areas (Africon, 2006). • Guide waste management within the District according to a strategic plan, which takes into account the WMP drafted by the local municipalities, their IDP's, SDF's, as well as other relevant plans. This strategic plan should focus on District-level issues, assistance and coordination. • Ensure municipalities are aware of the impact of poorly sited and managed waste disposal facilities have on water resources, particularly groundwater resources. • Develop and test innovative approaches to waste minimisation, re-use and recycling. Where appropriate explore collaboration with the private, public, commercial and NGO sectors in promoting waste minimisation, re-use and recycling. • Ensure that infrastructure development plans are always accompanied by a public education campaign. • Encourage applicants for development approvals in the district to undertake on-site sewage treatment methods - where this can be achieved without risk to the natural environment - as described in the Guidelines for assessing Land Use Management Applications in Rural Areas (Africon, 2006). • Ensure that the development decision-making process is informed by an understanding of the capacity of existing sanitation infrastructure and waste management capabilities, and that this capacity is not exceeded, or that sufficient and effective new infrastructure is installed to service new urban development. • Continue to support the activities of the technical Action Committees within each sub-district, comprising officials from the C and B municipalities, that jointly address "hotspots"/problems concerning water and sanitation provision, as described in the draft Winelands IDP (2006/2007). • Implement an effective capacity building programme to meet the need for skilled air quality officers that can correctly interpret monitoring results and report on these. • Implement an effective air pollution monitoring programme to establish a databank that can be used as a tool to inform decision-making regarding all future development. • Encourage industries to monitor air pollutants on site while local authorities monitor such pollution in residential areas.

STRATEGIC GOAL: Effective waste management, pollution control and service provision

Objective:

n) Adequate water supply, waste water (sewage) treatment and storm water management infrastructure is an integral part of all new development and is maintained in good working order to prevent contamination of natural waters

Opportunities	Constraints
<ul style="list-style-type: none"> • The CWDM is in the process of developing a Waste Management Plan for the district as a whole.⁵⁴ • The District has a Water Services Development Plan for its DMA⁵⁵. • The Integrated Development Planning process provides an opportunity for Integrated Water Resources Management. • District municipalities will have an opportunity to participate in the establishment and operation of Catchment Management Agencies, which will also in most instances act as Water Services Authorities and Water Services Providers. • The short life span remaining of many waste disposal facilities in the Province presents an opportunity for the regionalisation of waste disposal facilities, a process in which District municipalities could take a leading role. • Among the key objectives of the Working for Water Programme is to increase the sustainable flow of water in rivers. • There is an opportunity to implement water conservation and demand management initiatives in the agriculture sector, as the biggest water user in the area. • The District Municipality has committed itself to addressing the backlogs in sanitation in the draft Integrated Development Plan (Cape Winelands District Municipality, draft for 2006/2007). • Implementation by the Department of 	<ul style="list-style-type: none"> • The Western Cape Provincial IDP (Provincial Government of the Western Cape, 2005) highlights a possible looming waste management crisis in the Province, due to the very short lifespan remaining on many waste disposal facilities. • Spread of invasive alien plants could threaten water availability. • Limited opportunities to develop new freshwater resources. • Backlogs in service delivery and infrastructure provision, resulting in contamination of water resources by substandard effluent and associated health risks^{56 57}. • Overloaded wastewater treatment works during peak flow periods, poor maintenance of the infrastructure, lack of trained staff and inadequate monitoring of oxidation ponds. • Significant amount of waste generated by the restaurant and accommodation industry. • Water quality and quantity threatened by waste water discharges, salinisation caused by poor agricultural practices, sedimentation as a result of erosion from the clearing of indigenous vegetation, the use of pesticides, climate change, poor irrigation practices, water transfers and alien vegetation encroachment, amongst other factors. • External demands on the ecosystem services provided by water in the

⁵⁴ Cape Winelands District Municipality (n.d.) *IDP/Review – 2006/2007: Draft*, Available at: <http://www.pms.gov.za/website/default.aspx>, downloaded 18 December 2006.

⁵⁵ *ibid*

⁵⁶ Stakeholder Scoping Workshop, 16 May 2006, Worcester

⁵⁷ Africon (2005) *Towards Disaster Management Plans for the Cape Winelands District Municipality: Hazard Identification, Vulnerability Assessment and Risk Prioritisation in the Cape Winelands District Municipality: Version1*, prepared for the Cape Winelands District Municipality

<p>Water Affairs and Forestry (DWAF) of waste discharge charges based on the quantity and quality of wastewater releases.</p>	<p>CWDM Area e.g. from Cape Town</p> <ul style="list-style-type: none"> • No formal waste collection and disposal facilities in the rural areas.⁵⁸ • Negative impact of climate change on the availability of water in the CWDM Area. • Decrease, due to climate change, of the assimilative capacities of rivers, on which the discharge licenses of wastewater treatment works are based. • The particular vulnerability of groundwater resources to pollution emanating from industrial sites, cemeteries, waste disposal sites, informal settlements and petrol stations.
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Strategic Actions

- Facilitate the development of comprehensive Waste Management Plans (WMP) by the local municipalities that encourage all new developments, particularly those in rural areas, to separate waste on site and to recycle waste, as proposed in the Guidelines for assessing Land Use Management Applications in Rural Areas (Africon, 2006). Ensure that these plans address all sources of waste in the Cape Winelands, including that generated by the restaurant and accommodation industry.
- Support (e.g. through provision of information and the development of guidelines on most recent best practice) the formulation and revision of comprehensive Water Services Development Plans (WSDP) by all local municipalities in the District.
- Guide waste and water management within the District according to a strategic plan, which takes into account the WMP drafted by the local municipalities, their IDP's SDF's, as well as other relevant plans. These strategic plans should focus on District-level issues, assistance and coordination.
- Protect water resources from various hazards and associated contamination⁵⁹ through the implementation of detailed disaster management plans.
- Map areas where groundwater is vulnerable to pollution and investigate the potential for the sustainable use of groundwater resources in the District.
- Ensure municipalities are aware of the impact of poorly sited and managed waste disposal facilities have on water resources, particularly groundwater resources.
- Ensure that the capacity (ie. human skill, financial resources and infrastructure) exists for the sustainable maintenance and management of wastewater treatment facilities.
- Participate in the establishment of Catchment Management Agencies within the District and in the activities of the CMA reference group and Catchment Management Committee.
- Continue to support the activities of the Water Quality Task Team to proactively improve water quality in the CWDM Area.
- Inform planners and decision-makers within the Municipality of the current state of the rivers in the District and the changes in this state over time. Use this information to support the work of the CMA's, the Water Quality Task Team and the local authorities.
- Encourage applicants for development approvals in the district to implement water saving

⁵⁸ ibid

⁵⁹ as outlined in the following document: Africon (2005) Towards Disaster Management Plans for the Cape Winelands District Municipality: Hazard Identification, Vulnerability Assessment and Risk Prioritisation in the Cape Winelands District Municipality: Version 1, prepared for the Cape Winelands District Municipality

mechanisms (e.g. grey water re-use) and to undertake on-site sewage treatment, (where this can be achieved without risk to the natural environment), as described in the Guidelines for assessing Land Use Management Applications in Rural Areas (Africon, 2006).

- Ensure that the development decision-making process is informed by an understanding of the capacity of existing water and sanitation infrastructure and that this capacity is not exceeded, or that sufficient and effective new infrastructure is installed to service new urban development.
- Continue to support the activities of the technical Action Committees within each sub-district, comprising officials from the C and B municipalities, that jointly address “hotspots”/problems concerning water and sanitation provision, as described in the draft Winelands IDP (2006/2007) Develop and test innovative approaches to waste minimisation, re-use and recycling and to water demand management and purification (e.g. current project to provide water purification systems on farms in order to ensure people in rural areas have safe drinking water⁶⁰). Emphasis should be placed on finding alternative solutions to conventional capital intensive infrastructure development in isolation.
- Ensure that infrastructure development plans are always accompanied by a public education campaign regarding the implications for water supply, and waste water and stormwater management.
- Support initiatives such as LandCare and the CapeNature Conservation Stewardship Programme, to engage the public in sustainable land management practices.
- Support and complement initiatives for the clearing of alien invasive plants.

⁶⁰ Cape Winelands District Municipality (n.d.) *IDP/Review – 2006/2007: Draft*, Available at: <http://www.pms.gov.za/website/default.aspx>, downloaded 18 December 2006.

5. TRANSLATING THE STRATEGY INTO ACTION: STRATEGIC ENVIRONMENTAL MANAGEMENT PLAN (SEMP)

The purpose of the implementation plan that follows is to provide a more specific set of priority projects to be undertaken in the short- to medium term, in order to move in the strategic direction set in this report. These projects were identified based on the following:

- The draft environmental strategy;
- Projects identified by the specialists that addressed each ecosystem service in the compilation of the strategy;
- A workshop that was held in April 2007 and was attended by the following:
 - § specialists that compiled reports on each of the ecosystem services discussed in this strategy (i.e. water, land, air and biodiversity); as well as the specialist that dealt with issues concerning governance;
 - § Representatives from the following Directorates/Departments in the District Municipality: Public Safety and Planning; Engineering and Infrastructural Services and Environmental Health Services;
 - § Representatives from Witzenberg and Stellenbosch Local Municipalities;
 - § Representative from the national Department of Environmental Affairs and Tourism (DEAT); and
 - § Representatives from the CSIR project team.
- Discussions with representatives from the following Directorates/Departments in the District Municipality: Public Safety and Planning; Engineering and Infrastructural Services and Environmental Health Services.

The implementation plan will also be advertised for public comment in May 2007.

The plan is presented in the tables that follow, which are arranged according to the following broad themes that were identified as cross-cutting to the strategy:

- Development and Environmental Planning;
- Climate Change;
- Disaster Management;
- Strategic Water Management;
- Cooperative Governance and Stakeholder Engagement;
- Legislation and Policy;
- Education and Capacity Building;
- Energy;
- Agriculture;
- Waste management, pollution control and service provision; and
- Nature-based tourism.

Please note that each project would need to be described in further detail before its implementation and that the main role players identified in the last column are merely examples of those that should be involved in the project.

SEA FOR THE CAPE WINELANDS DISTRICT MUNICIPALITY
DRAFT ENVIRONMENTAL STRATEGY REPORT

DEVELOPMENT AND ENVIRONMENTAL PLANNING

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers (examples)
1. Fine-scale biodiversity planning for identified priority areas within the Cape Wine lands District Municipality	c,d,g	<p><u>Aim:</u> To provide a set of conservation priorities for identified priority areas within the District, that inform land-use and environmental planning, based on a detailed assessment of the state of the natural environment.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify possible partners in undertaking this project and existing initiatives (e.g. CapeNature is already undertaking fine-scale biodiversity planning⁶¹) 2. Identify priority areas for which fine-scale planning is required, based on existing data such as that generated by the CAPE Programme. 3. Collation of existing information relevant to fine-scale biodiversity planning in the priority areas and identification of information gaps. 4. Collection of data to address the gaps identified. 5. Spatial mapping for priority areas and recommendations for the management of each area. 6. Feed the fine-scale biodiversity information into the process of defining Spatial Planning Categories (SPC) for the Biosphere Reserve and/or the District. 7. Investigate the possibility of a process for the development of an Environmental Management Framework (EMF), related to the CWDM Area, being initiated by provincial government and feed the fine-scale biodiversity information and/or Spatial Planning Categories into any such process⁶². 	Public Safety and Planning (Land Use and Spatial Planning)	Local Municipalities, CapeNature, SANBI, CAPE Programme, Western Cape Dept of Agriculture, LandCare Section

⁶¹ An initiative is currently underway to develop a fine-sale conservation plan for the Upper Breede Valley area (Comment on the strategy received from CapeNature, February 2007).

⁶² Environmental Management Frameworks (EMFs) are provided for in Chapter 8 of the regulations (DEAT, 2006), passed in terms of Chapter 5 of the National Environmental Management

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DEVELOPMENT AND ENVIRONMENTAL PLANNING

		<p><u>Output/outcome</u> A spatial map indicating the conservation priorities in the District on a scale of 1:10 000-1:20 000, within the identified priority areas; as well as corresponding recommendations for the management of each area.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Inclusion of the conservation priorities and recommendations identified, in the review of the Integrated Development Plan (IDPs) and Spatial Development Framework (SDFs) of the District and the Local Municipalities; and in any Environmental Management Framework (EMF) that may be initiated for the CWDM Area. 2. Inclusion of the conservation priorities and recommendations in the defining of Spatial Planning Categories as part of the proposed Biosphere Reserve in the District. 3. Evidence that the recommendations identified have practically influenced spatial planning and development decision-making in the District (e.g. in the Record of Decisions for development applications). 		
2. Sustainability decision-support tool	d,f,g	<p><u>Aim:</u> To develop a tool to guide land-use management decisions (e.g. development applications, SDF's, infrastructure planning) towards the objectives of sustainability.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify the key stakeholders that should be involved in developing the sustainability decision-support tool (e.g. District and Local Municipalities, 	Public Safety and Planning (Land Use and Spatial Planning)	Relevant provincial and national departments District Municipality

Act (No 107 of 1998) (DEAT, 2006). The regulations make provision for the Minister or MEC to initiate an EMF for an area (DEAT, 2006). An EMF is an important instrument that can be used for the coordinated management of environmental information in both a spatial and non-spatial form. EMF's guide decision-making based on environmental priorities and thereby assist in ensuring sustainable development.

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DEVELOPMENT AND ENVIRONMENTAL PLANNING

		<p>CapeNature, representatives from industry and communities).</p> <ol style="list-style-type: none"> 2. Determine the form that the decision-making tool will take (e.g. guidelines, GIS mapping, criteria, principles). Investigate the possible alignment of this tool with the Environmental Management Frameworks (EMFs) provided for in Chapter 8 of the regulations (DEAT, 2006) passed in terms of Chapter 5 of the National Environmental Management Act (No 107 of 1998) 3. Collate existing guidelines that should be incorporated into the tool (e.g. Provincial Urban Edge Guidelines and the District's Guidelines for Assessing Land Use Management Applications in Rural Areas). 4. In a participatory way, identify the key objectives of the decision-support tool (e.g. maintenance of ecologically sensitive areas; maintenance of air quality, maintenance of agriculturally productive land; enhancement of the areas tourist attraction through, for example, avoiding negative visual impacts of development etc). 5. Develop the tool and ensure that key stakeholders are provided an opportunity to participate in this process. 6. Identify key pilot areas for the application of the decision-support tool (e.g. in commenting on development applications at District level, in decision-making concerning development applications at Local Municipality level, and in the formulation of SDF's and IDPs). 7. Coordinate 2/3 training and awareness raising events amongst politicians and officials concerning the use of the tool. 8. Review the effectiveness of the tool in the areas identified in point 6 above and revise it in the light of the experience gained. 9. Ensure that the decision-making tool is updated in light of the environmental information obtained in project 1 above and the bioregional spatial planning categories that are to be defined for the area. Different guidelines for decision-making should apply for each of the categories (ie. the core, transitional and buffer areas). <p>Output:</p>		<p>Local Municipalities</p> <p>Key stakeholders</p>
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DEVELOPMENT AND ENVIRONMENTAL PLANNING

		<p>The form (e.g. guidelines, GIS mapping, criteria, principles) of the decision-support tool is to be determined through the project. It is suggested that at least a set of guidelines for decision-making is produced.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. The tool has been used in the pilot areas identified in point 6 and has found to be effective through the review described in point 8. 2. The decision-support tool is regularly used by politicians and officials when making decisions concerning development in the District. 3. Development decisions that are made within the District meet the sustainability objectives (point 4) identified as part of the decision-support tool. 		
<p>3. Identification of potential new waste disposal site</p>	<p>m,n</p>	<p><u>Aim:</u> To identify a potential new waste disposal site for the CWDM Area.</p> <p><u>Tasks:</u> The identification of a new waste disposal site is to be undertaken as part of the revision of the Spatial Development Framework. It is suggested that alternative viable sites are identified and that these alternatives are included in the Environmental Impact Assessment (EIA) that will be legally required. The EIA should assist in determining the most appropriate site.</p> <p><u>Output:</u> The outputs will be aligned with those required of the SDF and EIA processes.</p> <p><u>Indicators of success:</u> Waste disposal site has been identified through a transparent and accountable process.</p>	<p>Public Safety and Planning (Land Use and Spatial Planning)</p> <p>Engineering and Infrastructural Services (Projects)</p> <p>Community and Developmental Services (Environmental Health Services)</p>	<p>Relevant provincial and national departments</p> <p>District Municipality</p> <p>Local Municipalities</p> <p>Key stakeholders</p>

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DRAFT ENVIRONMENTAL STRATEGY REPORT

DEVELOPMENT AND ENVIRONMENTAL PLANNING

Medium-term (2-5 years)

4. Environmental Policy	d,e,g	<p>An environmental policy is required to guide environmental management within the District and the Local Municipalities. This Environmental Strategy is integral to the development of such a policy. It is recommended that the drafting of the policy should be guided by the environmental task team/sub-committee proposed in Project 13 or, if this has not yet been established, a steering committee be convened for this purpose, that includes the local municipalities, relevant national and provincial departments, Non-Governmental Organisations, academics and other key stakeholders. It is also recommended that the environmental policy include the principles/guidelines that the District Municipality, as an organisation in its own right, will adopt and implement e.g. a system based on ISO 14 000 and/or a Green Code of Ethics.</p>	Public Safety and Planning (Land Use and Spatial Planning)	<p>Local Municipalities in the District Relevant District Municipality Directorates including: Community and Developmental Services; and Engineering and Infrastructural Services</p> <p>Relevant Provincial and National Departments.</p> <p>Key stakeholders, community and interest groups.</p>
5. Heritage Policy	d,e,g	<p>A heritage policy is required to guide the management of the natural and cultural heritage of the Cape Winelands. The heritage policy should respond to the designation of the Winelands Cultural Landscape as a National Heritage Site and its status on UNESCO's tentative world heritage list. It should also be developed and implemented in collaboration with the provincial (Heritage Western Cape) and national (South African Heritage Resources Agency) heritage authorities charged with the management of the cultural landscape; as well as the local municipalities in the District, relevant national and provincial departments, Non-Governmental Organisations, academics and other key stakeholders.</p>	Public Safety and Planning (Land Use and Spatial Planning)	<p>Local Municipalities in the District Provincial (Heritage Western Cape) and national (South African Heritage Resources Agency) heritage authorities. Key stakeholders, community and interest groups.</p>

SEA FOR THE CAPE WINELANDS DISTRICT MUNICIPALITY
DRAFT ENVIRONMENTAL STRATEGY REPORT

CLIMATE CHANGE				
Short-term (1-2 years)				
Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers (examples)
6. Climate change task team for the Cape Winelands	c,l	<p><u>Aim:</u> To understand the impacts of climate change on the Cape Winelands and the actions that the District Municipality needs to take as a result.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Establish a task team comprising key stakeholders in the climate change debate in the Cape Wine lands District Municipality, including the District and Local Municipalities, Farmers Associations and Non-Governmental Organisations. 2. Undertake a short review of the current research and initiatives on climate change. Identify the relevance of this research to the CWDM Area in particular and initial ideas on the action that needs to be taken as a result of these findings. 3. Based on the outcomes of the above review, develop an action plan of initiatives and/or research to be coordinated by the task team on climate change in the Cape Winelands, in the short- to medium- term. 4. Implement the initiatives identified in the plan described above. It is recommended that the climate change task team meet at least on a quarterly basis. <p><u>Output:</u> Research report on the outcome of the review described in point 2 above. Other outputs to be defined in the climate change task team's plan described in point 3.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. The review described in point 2 is successfully completed and clearly informs the action plan described in point 3. 2. The task team meets on a regular basis, has developed an action plan and begun to implement it. 	Public Safety and Planning (Emergency Services: Disaster Management)	These should be identified in the first stage of the project, but should include a representative from each Local Municipality
Medium-term (2-5 years)				
7. Task Team	c,l	Medium-term activities to be defined in the climate change task team's action plan.	As above	As above

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DISASTER MANAGEMENT

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers (examples)
8. Fire Awareness and Training Programme	i	<p><u>Aim:</u> To raise awareness amongst communities and farmers of the need to participate in Fire Protection Agencies (FPA's) and to provide basic fire fighting skills.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify the priority areas where farmers and communities could significantly assist in fire management, through participation in FPA's (whether these exist yet or are soon to be established) and through having basic fire fighting skills. 2. Develop, with the participation of relevant external agencies (e.g. CapeNature) a training and awareness programme that emphasises the need to participate in FPA's and provides basic fire fighting skills. 3. Implement the training and awareness programme. 4. Review the programme in the light of the experience gained through its implementation. <p><u>Output</u> Course outline with corresponding training material including, for example, slides and a training manual. This material should be reviewed on a yearly basis.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. A fire training and awareness programme has been developed for communities and farmers, with particular emphasis on their role in FPA's. 2. The objectives of the training and awareness programme are met, as evaluated by participants. 3. The basic fire fighting skills of participants are demonstratively increased. <p>The number of farmers and communities participating in FPA's is significantly increased.</p>	Public Safety and Planning (Emergency Services: Fire Services)	Local Municipalities CapeNature Working on Fire

Medium-term (2-5 years)

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DISASTER MANAGEMENT

<p>9. Formation of an Umbrella Fire Protection Association (FPA) for the Cape Wine lands District Municipality.</p>	<p>i</p>	<p>In terms of its statutory functions (as described in the Municipal Structures Act No 117 of 1998), the District Municipality is currently responsible for the planning, coordination and regulation of fire services within the District. To assist the Municipality in this task it is suggested that it investigate the possibility of establishing an Umbrella Fire Protection Agency, as described in the National Veld and Forest Fire Act of 1998. This Agency would include key stakeholders such as CapeNature, DWAF and landowners (e.g. MTO Forestry) and from programmes such as the Working on Fire Programme. The Umbrella FPA would be responsible for the development and implementation of an FPA business plan, including a description of the current situation, a veldfire management strategy and a plan for how risks will be managed. It is suggested that the possibility of rewarding good land management and compliance with the Veld and Forest Fire Act is considered. The formulation of this business plan should be coordinated with the process that is currently underway for the development of a Disaster Management Plan for the District.</p>	<p>Public Safety and Planning (Emergency Services: Fire Services)</p>	<p>Local Municipalities CapeNature Working on Fire</p>
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STRATEGIC WATER MANAGEMENT

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers (examples)
10. Systematic monitoring of water quality	m,n	<p><u>Aim:</u> Gain a comprehensive understanding of the status of water quality across the Cape Winelands District and of the sources of pollution.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify any current monitoring that is being undertaken across the Cape Winelands within the District Municipality^{63 64}, by Local Municipalities and by external agencies. 2. Identify key stakeholders that should be involved in the monitoring programme 3. Develop overall phased monitoring programme to be undertaken over the short- to medium-term 4. Identify sampling points and compile sampling programme 5. Implement programme and collect data 6. Analyse results and determine trends. Map sources of water pollution. 7. Ensure that decision-makers and all relevant departments within the District and the Local Municipalities are aware of these trends (e.g. distribute short report of results, give presentations at the appropriate fora) 8. Develop an action plan to address main sources of pollution 9. Implement action plan and continue monitoring <p><u>Outputs:</u> Monitoring plan, report indicating the results of monitoring, spatial map of sources of</p>	Community and Developmental Services (Health Services: Water Quality Task Team)	<p>Local Municipalities</p> <p>River Health Programme</p> <p>Industry</p> <p>Relevant provincial (e.g. DEA&DP) and national government departments, (e.g. DWAF and DEAT)</p> <p>Key stakeholders, including affected communities and NGO's</p>

⁶³ For example, the Municipal Health Services Department proposes to implement a River Improvement Project that will start with a pilot project involving the monitoring of the water quality of the Breede River.

⁶⁴ River Health Programme has generated information on the status of the Berg River

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STRATEGIC WATER MANAGEMENT

		<p>pollution and their effluent discharges, and an action plan to address the main sources of pollution.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Completion of the monitoring programme to the satisfaction of the key stakeholders involved. 2. Successful completion of the first phase of the monitoring programme. 3. Implementation of the action plan to address the sources of pollution. 4. Increase in water quality in the rivers in the District. 		
<p>11. Facilitating the development and implementation of effective Water Master Plans within the District</p>	<p>n</p>	<p><u>Aim:</u> Ensure that effective Water Master Plans exist for the local municipal areas within the District.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify the Water Master Plans (WMPs) for the Local Municipalities (including the DMA) that need to be updated. 2. Discuss with the Local Municipalities, ways in which the District Municipality can assist in ensuring that effective WMPs exist in the areas identified above. 3. Provide information contained in the WMP's concerning predictions for water usage and the capacity for the provision of water supply services, to the relevant departments within the District Municipality (e.g. Public Safety and Planning). 4. Facilitate the sharing of lesson's learnt in the development and implementation of WMPs amongst the Local Municipalities. <p><u>Output</u> Effective WMPs within all areas of the CWDM Area.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Existence of effective WMPs within all areas of the CWDM Area. 2. Increase in the quality of current information concerning the supply of water now 	<p>Engineering and Infrastructural Services (Projects)</p>	<p>Local Municipalities</p>

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STRATEGIC WATER MANAGEMENT

		and into the future. 3. More efficient water supply in all areas of the District.		
12. Water demand management study	N	A study should be undertaken to determine, more specifically, the water limitations to growth. This study should include measures and guidelines for water demand management, particularly in the agricultural sector. It is proposed that the study is commissioned by the environmental task team/sub-committee proposed in Project 13 and that the results are effectively communicated to decision-makers and relevant officials at the District level and the Local Municipalities. This study should form the basis for the development of a water demand management strategy (see Project 28).	Public Safety and Planning (Land Use and Spatial Planning) (Environmental task team if developed)	Engineering and Infrastructural Services (Projects) Community and Developmental Services (Health Services) Local municipalities, Relevant provincial and national departments (e.g. DWAF). Research institutions with relevant information

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COOPERATIVE GOVERNANCE AND STAKEHOLDER ENGAGEMENT

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers (examples)
13. Establishment of an environmental task team.	f	<p><u>Aim:</u> Establish an environmental task team in order to improve communication and learning between departments within the District Municipality, between the District and Local Municipalities; and between local government and stakeholders. This task team could take the form of the Environmental Management Sub-Committee which is proposed in terms of the Draft Cape Winelands District Growth and Development Strategy (2006), or be linked to this forum.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify key stakeholders that should be invited to participate in the environmental task team/ sub-committee. At a District level, representatives from Public Safety and Planning, (particularly Environmental Health); and should attend; as well as representatives from the planning and/or environmental sections from the Local Municipalities. 2. Determine whether a separate environmental task team is to be created, or whether it will take the form of the Environmental Sub-Committee proposed in terms of the Draft Cape Winelands District Growth and Development Strategy (2006). 3. If the task team is to take the form of the environmental sub-committee, review the proposed functions of this sub-committee and ensure that they include all functions required for the maintenance and enhancement of ecosystem services in the District. This should be informed by the legal review described in Project 15. 4. Convene the task team or sub-committee and develop an action plan based on the proposals in this strategy, the requirements of the Growth and Development Strategy, the legal review and the SDF. This action plan should include 	<p>Public Safety and Planning</p> <p>(Land Use and Spatial Planning)</p> <p>Community and Developmental Services (Environmental Health Services)</p>	<p>Those that should be invited to the task team include:</p> <p>Relevant District Directorates including: Engineering and Infrastructural Services; Provincial government CapeNature; SANBI; NGO's; Community groups; Interest groups; and Farmers Associations, amongst others</p>

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COOPERATIVE GOVERNANCE AND STAKEHOLDER ENGAGEMENT

		<p>timeframes and measurable targets.</p> <p><u>Output:</u> As determined by the task team/sub-committee</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. The task team/sub-committee has been convened and meets on a regular basis. 2. The meetings are attended by the District, all B municipalities and key stakeholders identified. 3. An action plan has been developed and the task team/sub-committee has begun to implement it. 		
<i>Medium-term (2-5 years)</i>				
14. Continued operation of the environmental task team/sub-committee	f	Medium term activities to be defined by the environmental sub-committee. It is recommended that these activities are guided by the plan developed in the first phase (which should be guided by this strategy, the projects listed in this implementation plan, the legal review and the SDF).	As above.	As above. Expanded as appropriate.

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LEGISLATION AND POLICY

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers (examples)
15. Clarification of roles and responsibilities concerning the management of ecosystem services	d,e,f	<p><u>Aim:</u> Clarification of the roles and responsibilities for the management of ecosystem services between the different spheres of government; and within the District Municipality.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Undertake a review of legislation relating the maintenance and enhancement of ecosystem services in the District and clarify the roles of responsibilities between different spheres of government and within the District Municipality. The review should include the District's by-laws, as well as recommendations on whether these should be revised. 2. Provide relevant summary report/s to the various departments of the District Municipality and to the Local Municipalities. 3. Provide recommendations to the environmental task team, which should determine the follow-up actions to be taken. 4. The review should also inform the education and capacity building programme described in Project 17. <p><u>Output</u> Report on the outcomes of the review described above, as well as a summary report/s for distribution to the various departments within the District Municipality and to the Local Municipalities.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Successful completion of the legal review. 2. Revision of District-level by-laws where appropriate. 3. Increased understanding of the roles and responsibilities concerning the 	<p>Public Safety and Planning (Land Use and Spatial Planning)</p> <p>Community and Developmental Services (Health Services)</p>	<p>Environmental and Planning departments from local municipalities.</p> <p>Provincial and national government departments dealing with the management of ecosystem services. (e.g. Western Cape Department of Environmental Assessment & Development Planning and National Department of Water Affairs and Forestry)</p>

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LEGISLATION AND POLICY

management of ecosystem services within the District and between the various spheres of government (this outcome is linked to Project 17).

Medium-term (2-5 years)

16. Clarification of roles and responsibilities concerning the management of ecosystem services

d,e,f

Update of the review described above in the light of any new legislation that has been promulgated.

As above

As above

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EDUCATION AND CAPACITY BUILDING

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department/s	Main Roleplayers (examples)
17. Environmental Education and Awareness Programme	d,g,h,k	<p><u>Aim:</u> Raise the level of awareness amongst politicians, officials and key stakeholders within the District of the role of ecosystem services in supporting development and the need for the maintenance and enhancement of these services.</p> <p><u>Tasks:</u></p> <ol style="list-style-type: none"> 1. Undertake a short review of the current education and awareness building initiatives being undertaken within the Cape Winelands by the District Municipality⁶⁵, the Local Municipalities and by other agencies related to the management of ecosystem services. Identify the key roleplayers. 2. Develop an ongoing, well conceived and resourced environmental education and awareness programme that comprises, for example, workshops, courses, one-on-one sessions, presentations to key sectors and the development of distance learning material. The programme should be adapted to the needs of different participant groups (see point below) and developed with their participation. Where possible the District should link up and share resources with the existing initiatives identified in point 1 above. The education and awareness programme should be informed by the legal review of roles and responsibilities for the management of ecosystem services, undertaken in Project 15. 3. The overall programme should facilitate an understanding, amongst the politicians, officials, key economic sectors, communities and others of, <i>inter alia</i>, the following: 	<p>Public Safety and Planning</p> <p>Community and Developmental Services (Municipal Health Services)</p>	<p>Local Municipalities and those agencies already undertaking environmental awareness programmes in the District.</p> <p>Stakeholders and communities.</p>

⁶⁵ For example, the Municipal Health Services Department of the District is currently running an environmental health education programme to create environmental awareness and bring about a change in negative behavioural patterns amongst grade 6 pupils, through an educational project in which live theatre performances are used in schools throughout the CWDM Area. In addition the Municipal Health Services Department has a "Clean & Green" Project that aims to create awareness among the general public about the environment and pollution control. This is achieved through educational projects at schools and clean-up campaigns.

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EDUCATION AND CAPACITY BUILDING

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| | | <ul style="list-style-type: none"> • The fundamental importance of the ecosystems services provided by land and soil, biodiversity, air and water within the Cape Winelands District; • The types of ecosystems within the District; • The key ecosystem features and services within the District and the priorities for conservation; • The current threats (including climate change) to the maintenance and enhancement of ecosystems services provided by land and soil, biodiversity, air and water within the Cape Winelands District; • The principles of sustainable development; • The national, provincial and local environmental legislation, as well as existing plans such as Water Services Development Plans (WSDPs); • The roles and responsibilities of various spheres of government in the maintenance of ecosystem services within the District (informed by the review undertaken in Project 15); • The environmental management tools and processes that are available; • The current initiatives, guidelines and key reports that could assist stakeholders in planning and development in the area, while maintaining the key ecosystem services; • The integration of environmental issues into IDP's and SDF's at the local and District levels; • The ecological conditions that affect fire risks within the District and the effects of past fires on the social, economic and biophysical environment; • The implications of climate change on key sectors in the District and the appropriate farming methods, crop selection and innovative product development, within the constraints of land capability under climate change; and • Monitoring, the interpretation of results and reporting. | | |
| | | 4. Plan the implementation of the awareness programme over the short- and | | |

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EDUCATION AND CAPACITY BUILDING

		<p>medium- term.</p> <ol style="list-style-type: none"> 5. Conduct the training identified as a priority for the short-term. 6. Ensure that participants complete an evaluation form for the future revision of the programme. <p><u>Output:</u> Course materials (e.g. presentation slides, a manual, notes); as well as a report on the effectiveness of the first phase of the programme, based on the participant's evaluation forms and the experiences of the presenters. This report should include any recommendations for the revision of the programme.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. The environmental education and awareness programme has been developed and the first phase has been successfully completed, as evaluated by the participants. 2. The learning points from the completion of the first phase of the programme have been successfully captured and the programme has been revised in the light of this learning. 		
Medium-term (2-5 years)				
18. Environmental Education and Awareness Programme (continued)	d,g,h,k	Continue implementation of the environmental education and awareness programme.	As above	As above

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ENERGY				
Short-term (1-2 years)				
Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers
19. Develop an Integrated Energy Plan for the District	j	<p><u>Aim:</u> To provide a framework for comprehensive, future orientated energy planning in the District which incorporates provisions for energy conservation (demand management) as well as sustainable supply options from a range of energy sources.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. An Integrated Energy Plan is currently being drafted for the Cape Winelands District as a whole (2007/8 budget year). Ensure that the Plan is comprehensive through comprehensive review by key stakeholders, and that it is aligned with provincial energy planning guidelines. 2. Develop guidelines for “B” municipalities for the drafting of Local Energy Plans. 3. Local municipalities to draft Local Energy Plans <p><u>Output/outcome</u></p> <p>An integrated series of Energy Plans at District and Local Municipality levels that address the long term energy future in the District.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Resource optimisation between the different levels of government in regard to energy planning (financial / budget, human resources). 2. Increased use of renewable energy supply and reduced reliance on the national electricity grid. 3. Reduced demand (usage) for electricity. 	Engineering & Infrastructural Services (Projects: Technical Support Section)	“B” municipalities, Eskom, Provincial government (DEAD&P, DST), NGOs focusing on energy, Centre for Renewable and Sustainable Energy Studies in the Engineering Faculty of Univ of Stellenbosch
20. Public Energy Awareness Campaign	j	<p><u>Aim:</u> Empower the citizens of the CWDM to make informed choices about energy usage and options and encourage adoption of renewable and sustainable energy options.</p>	Engineering & Infrastructural Services (Projects:	Community & Developmental Services (Municipal

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ENERGY				
		<p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Design the energy awareness programme in alignment with the Integrated Energy Plan and the District Growth and Development Strategy. 2. Implement the Energy Awareness Programme through the Local Economic Development offices in each “B” municipality, possibly with demonstrations of technologies. <p><u>Output/outcome:</u> Improved self sufficiency and security of supply of energy and usage in the District – lower dependency on the national electricity grid. Maintenance of good air quality in the District with positive secondary effects on the tourism industry.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Measurable decrease in demand for grid based electricity. 2. Adoption of renewable and sustainable energy technologies at household level e.g. solar water heating and energy efficient housing design. 3. Increased usage of alternative fuels such as biofuel, in the agricultural sector. 	Technical support section)	Health: Projects Section), “B” municipalities, Eskom, Provincial government (DEAD&P, DST), NGOs focusing on energy
Medium-term (2-5 years)				
21. Develop guidelines for energy efficient housing and amendment of building by-laws	j	<p><u>Aim:</u> To reduce energy demand and dependency in the District.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Develop design guidelines for energy efficient housing. 2. Amend local building by-laws to promote energy efficient housing design including e.g. water heating, lighting <p><u>Output/outcome:</u> Improved self sufficiency and security of supply of energy and usage in the District – lower dependency on the national electricity grid. Maintenance of good air quality in the District with positive secondary effects on the tourism industry.</p>	Engineering & Infrastructural Services (Projects: Housing Section)	Community & Developmental Services (Municipal Health Services: Projects Section), “B” municipalities, Eskom, Provincial government (DEAD&P, DST), National Department of Housing, Dept of Science and Technology,

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ENERGY

Indicators of success:

1. Measurable decrease in demand for grid based electricity.
2. Improved quality of life, especially for the poor in terms of for example, space heating.

architects focusing on green design, NGOs focusing on energy

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AGRICULTURE				
<i>Short-term (1-2 years)</i>				
Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers
22. Promote Local Economic Development through the agricultural sector		<p><u>Aim:</u> Build relationships for effective communication with key stakeholders in the agricultural sector.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Identify and task a liaison person within the CWDM with establishing relationships between the District Municipality and the agricultural sector and identify key stakeholders. 2. Build relationships with key stakeholders in the agricultural sector, especially farmers. 3. Establish a Liaison Forum for engaging and networking with the agricultural sector, in alignment with existing initiatives such as the Biodiversity and Wine Initiative, the Integrated Production of Wine, Vision 2020 and others, and in particular with the District Growth and Development Strategy. <p><u>Output/outcome:</u> Farmers at all levels, but particularly small / emerging farmers, are exposed to existing initiatives and available mechanisms to broaden and diversify their economic base. The CWDM is aware of issues in the agricultural sector that could impact on the maintenance and management of ecosystem services in the District and can encourage positive changes where necessary. Broad based dissemination of information about the activities of the CWDM in maintaining ecosystem services to the agricultural sector, in particular the importance of sound soil and land management practices.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Active participation of key stakeholders in the agricultural sector in the Liaison Forum. 	Community & Developmental Services (Local Economic & Social Development: Local Economic Development Section)	LED offices in "B" municipalities, organised agriculture, Western Cape Dept of Agriculture & LandCare, Wines of South Africa (WOSA), BWI, IPW, Deciduous Fruit Producers Trust and others

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AGRICULTURE				
		<ol style="list-style-type: none"> 2. Economic progress of emerging farmers (as a result of participation in the network). 3. Diversified economy in the agricultural sector in the District as a whole (vertical movement in the value chain). 		
23. Promote agri-tourism		<p><u>Aim:</u> Encourage and promote agri-tourism to help support the economic viability of agricultural land uses through broadening the base of income sources to include tourism, to help prevent losses to other land uses.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Disseminate information to farmers regarding opportunities for agri-tourism. 2. Establish an agri-tourism support programme that promotes this form of tourism activity in the District as a whole. 3. Develop an agri-tourism route for the District, possibly with an interface with wine routes. <p><u>Output/outcome:</u> A network of farms and other establishments where agri-tourism activities are available.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Farmers in the District benefit from a diversified economic base. 2. Established agri-tourism route in the District. 	Community & Developmental Services (Local Economic & Social Development: Tourism Section)	LED offices in "B" municipalities, organised agriculture, Dept of Agriculture & LandCare, tour operators and agencies
Medium-term (2-5 years)				
24. Incentives programme for maintaining and improving ecosystem services		<p><u>Aim:</u> Provide financial (e.g. tax) incentives for maintaining and improving ecosystem services such as improving soil quality, adopting good agricultural practices, or pioneering the development of new agricultural products and marketing which address climate change.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Encourage National Treasury to provide for financial incentives to landowners, especially farmers, for maintaining ecosystem services. 	Community & Developmental Services (Local Economic & Social Development: Local Economic Development Section)	Financial Services, Corporate and Strategic Services, District Mayor's office, National Treasury, Provincial Treasury.

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AGRICULTURE

		<p><u>Output/outcome:</u> Incentives programme for maintaining and improving ecosystem services designed and implemented by National Treasury.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none">1. Tax (or other) relief for farmers and other landowners who engage in e.g. good agricultural practices and similar activities, to maintain and protect ecosystem services.		
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WASTE MANAGEMENT, POLLUTION CONTROL AND SERVICE PROVISION

Short-term (1-2 years)

Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers
25. Develop an Integrated Waste Management and Pollution Control Strategy for the District as a whole		<p><u>Aim:</u> Provide a comprehensive framework and implementation plans for the management and control of waste and pollution in the District.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Complete development of Waste Management Plans in each of the “B” municipalities 2. Integrate local plans into an Integrated WMPC Strategy for the District, in alignment with IDPs, SDFs and the District Growth and Development Strategy. 3. Provide the necessary infrastructure for effective waste management and pollution control. <p><u>Output/outcome:</u> Integrated and coordinated waste management and pollution control activity at and between “C” and “B” municipalities.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Implementation of the IWMP strategy and local plans e.g. through successful waste minimisation and recycling programmes⁶⁶. 2. Development of a new regional landfill site for the District. 	Engineering & Infrastructural Services (Projects: Technical Support Section)	Community & Developmental Services (Municipal HealthL Projects Section), “B” municipalities, University of Stellenbosch Engineering Faculty
26. Develop an		<u>Aim:</u> Provide a framework for the management and maintenance of good air quality in the	Community Services	DEAT National

⁶⁶ The Municipal Health Services Section in the Directorate: Community and Developmental Services have developed a project for Waste Minimisation and Recycling, to reduce the amount of waste generated in the District. This is a current project, through which it is hoped to create awareness of the need for waste minimisation and recycling, and to provide infrastructure for recycling i.e. setting up recycling depots for exchange of recyclable materials. The project will be piloted in each of the 5 local municipalities.

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<p>Integrated Air Quality Management Plan (IAQMP)</p>	<p>CWDM Area.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Finalise the Service Level Agreement between “C” and “B” Municipalities in the District to clarify responsibilities for implementation of the Air Quality Act (Act 39 of 2004). 2. Draft the IAQMP (incorporate imperatives for the consideration of air quality impacts of land use and development planning). 3. Develop and implement an Air Quality Monitoring Programme which includes establishing an emissions inventory (baseline monitoring), designing monitoring programmes, including rationalising existing sampling processes in alignment with the requirements of the Air Quality Act, recruiting and training AQ officers for each “B” municipality, and implementing the monitoring programme in each of the “B” municipalities. <p><u>Output/outcome:</u></p> <p>A comprehensive framework and mechanisms for managing air quality in the District with clear responsibilities for implementation. AQ Monitoring Programme for each “B” Municipality. Emissions inventory for the District. Databank of AQ data.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Centralised coordination of AQ management activity in the District 2. Emissions inventory and available AQ data. 3. Good air quality is maintained throughout the District. 	<p>(Municipal Health Services Section)</p>	<p>(national), “B” Municipalities, industry</p>
<p>27. Development and revision of local Water Services</p>	<p><u>Aim:</u> Coordinate and support the enactment of the legal requirement in the National Water Act (Act 36 of 1998) for the existence of Water Services Development Plans at local municipality level.</p>	<p>Engineering and Infrastructural Services (Projects: Technical Support</p>	<p>“B” Municipalities</p>

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<p>Development Plans</p>	<p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Develop best practice guidelines for “B” municipalities and provide information for the development of WSDPs, against the backdrop of strategic water planning for the District. 2. Coordinate the development of WSDPs in all “B” municipalities. 3. Monitor implementation and coordinate necessary revision of WSDPs at local level. <p><u>Output/outcome:</u> Coordination of provisions in WSDPs</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Sustainable provision of reliable water services in the District. 	<p>Section)</p>	
<p>28. Design a Water Demand Management Strategy⁶⁷ (this project is linked to Project 12)</p>	<p><u>Aim:</u> To determine water usage volumes and patterns in the District and make provisions for reduction in water demand.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Prepare and Inventory / audit of water use, availability and demand in the District (the outcomes of Project 12 can assist here). 2. Design the Water Demand Management Strategy 3. Develop projects to reduce water demand in accordance with the strategy including raising public awareness. <p><u>Output/outcome:</u> Inventory of water demand and usage in the District. A District wide strategy that enables sound management of available water resources and prioritising of water allocation.</p>	<p>Public Safety and Planning (Land Use and Spatial Planning)</p> <p>(Environmental task team if developed)</p>	<p>Engineering and Infrastructural Services (Projects)</p> <p>Community and Developmental Services (Health Services)</p> <p>Local municipalities, Relevant provincial and national departments (e.g. DWAF).</p>

⁶⁷ The CWDM (Engineering and Infrastructural Services – Projects) is currently in the process of designing a Water Demand Strategy in collaboration with DWAF. The Strategy is due for completion in June 2007.

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		<p><u>Indicators of success:</u> Reduction in water use in the District as a whole.</p>		Research institutions with relevant information
29. Water and Sanitation Backlog Study		<p><u>Aim:</u> To create an inventory of backlogs in water and sanitation service provision so that the backlogs can be systematically addressed.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Design and populate a centralised electronic database of all water and sanitation service backlogs⁶⁸. The database will be used by the “B” municipalities, but coordinated by the District Municipality. 2. Systematically address each of the backlogs in each local municipality. <p><u>Output/outcome:</u> Better coordinated and successful water and sanitation service delivery. Prevention of contamination of water sources including groundwater and soil by inadequate sanitation.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Maintenance of good water quality of water sources in the District. 2. All backlogs in water and sanitation service delivery are addressed. 	Engineering and Infrastructure Services (Projects – Technical Support Section)	“B” Municipalities, consultants
30. Re-use of waste water		<p><u>Aim:</u> Reduce dependency on raw or treated fresh water for certain uses (e.g. household watering of gardens and irrigation of sportsfields) and overall reduction of water use in the District.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Conduct research into the viability and environmental implications of reuse of 	Engineering and Infrastructure Services (Projects – Technical Support Section) Community and	Community and Developmental Services (Municipal Health – Projects Section), DWAF, DEAT national

⁶⁸ The District Municipality has appointed consultants to design the database.

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		<p>wastewater⁶⁹.</p> <ol style="list-style-type: none"> 2. Develop guidelines and standards for re-use of wastewater at household and industrial levels, and in the agricultural and tourism industries. 3. Implement wastewater re-use and water saving mechanisms in local municipality areas, in different sectors. <p><u>Output/outcome:</u> Reduced pressure on water resources.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Sustainable re-use of industrial and other wastewater. 2. Reduced water demand. 	<p>Developmental Services (Environmental Health Services)</p>	<p>/DEADP, "B" municipalities.</p>
<p>31. Training programme for WWTP operators</p>		<p><u>Aim:</u> Improve management and operation of waste water treatment plants (WWTPs) to prevent malfunction, spillage and pollution.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Design training programme for WWTP operators 2. Implement training programme in all "B" municipalities. <p><u>Output/outcome:</u> Skilled WWTP operators who understand the implications of malfunction, spillage and pollution for contamination of water resources and the associated ecosystem services.</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. All WWTP operators have successfully completed the training programme. 	<p>Engineering and Infrastructure Services (Projects – Technical Support Section)</p>	<p>"B" Municipalities</p>

⁶⁹ The CWDM (Engineering and Infrastructural Services – Projects) is currently conducting a Re-use of Effluent Study in collaboration with DWAF. The Study is due for completion in June 2007.

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32. Ongoing planned maintenance of water reticulation systems

Aim: Reduce losses of treated water via leaks in reticulation systems.

General Tasks:

1. Conduct an audit of water losses and integrity of the water reticulation systems in all "B" municipalities.
2. Prepare a schedule of planned maintenance and repair of all leaks in the reticulation systems of each "B" municipality.

Output/outcome:

Significant reduction in unaccounted for water (losses).

Indicators of success:

1. Planned maintenance results in lower water losses in all "B" municipality areas.

"B" Municipalities

Engineering consultants

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NATURE-BASED TOURISM				
Short-term (1-2 years)				
Project Name	Obj.	Aim and Basic Tasks	Responsible Department	Main Roleplayers
33. Strategy for sustainable nature based tourism development		<p><u>Aim:</u> Provide a comprehensive framework for developing nature based tourism opportunities in the District.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Compile an inventory of existing nature based tourism opportunities and activities in the District 2. Design a strategy for the development of nature based tourism activity in collaboration with key stakeholders which is incorporated into and aligned with the IDP, Growth and Development Strategy and SDF. <p><u>Output/outcome:</u> Facilitated development of nature based tourism opportunities</p> <p><u>Indicators of success:</u></p> <ol style="list-style-type: none"> 1. Established network of nature based tourism activities 	Community Services (Economic and Social Development: Tourism Section)	CapeNature, Cape Winelands Tourism, LED offices in "B" municipalities
34. Developing unique and innovative nature based tourism products		<p><u>Aim:</u> Create unique draw cards to the District that make maximum sustainable use of the opportunities provided by the natural environment in the District.</p> <p><u>General Tasks:</u></p> <ol style="list-style-type: none"> 1. Workshop creative ideas for nature based tourism in the District. 2. Prepare an information leaflet to be made available to potential nature based tourism operators, through the LED offices in each "B" municipality. 3. Establish links with the CWDM Entrepreneurial Partnership Programme for the development of new products / services by emerging nature-based tourism operators. 	Community Services (Economic and Social Development: Tourism Section)	Existing nature-based tourism operators including CapeNature, LED offices in "B" municipalities, environmental NGOs

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NATURE-BASED TOURISM

Output/outcome:

Directory of nature-based tourism activities available in the District.
Unique and diverse attractions for tourists in the Cape Winelands District to engage in nature based activities.

Indicators of success:

1. New products / services are created and new operators are engaged on an ongoing basis.

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4. APPENDICES

Appendix A: Governance Context

Appendix B: Existing Initiatives for the Protection of Ecosystem Services

Appendix C: Comments and Responses Report

Appendix A: Governance Context

Current institutional arrangements for the management of ecosystem services in the Cape Winelands

The Cape Winelands District Municipality (CWDM) is a Category “C” municipality in terms of the Municipal Structures Act, 1998⁷⁰ (Act 117 of 1998, as amended) and the area it covers includes a District Management Area that it administers directly, as well as five “B” municipalities, namely, Witzenberg, Drakenstein, Stellenbosch, Breede River/Winelands and Breede Valley. It shares responsibility for local government with these municipalities, so that all communities have equal access to resources and services. The area includes the urban centres of Stellenbosch, Worcester and Paarl, and towns such as Franschhoek, Wellington, Robertson, Ceres, Saron, Tulbagh, Wolseley, Rawsonville, De Doorns, Bonnievale, McGregor, Prince Alfred Hamlet, Kylemore, Pniel, Raithby, Touws River, Montagu and Ashton.

Of the three types of Category “C” municipality defined in Section 10(b) of the Municipal Structures Act, 1998, the Cape Winelands District Municipality has chosen to have a mayoral executive system. The municipality has two components:

- The District Council - councillors elected in local elections every 5 years;
- The Administration – officials employed by the Council to deliver municipal services.

The municipality is accountable to its stakeholders, that is, councillors and officials are required to explain and justify their decisions or actions, and to make amends for any fault or error as well as take steps to prevent any recurrence (Corder, *et al*, 1999) of these. Table 1 outlines the most important lines of such accountability.

⁷⁰ Sections 3, 6, 10, 83-89 of the Act

Table 1: Political and Management Leadership of the Cape Winelands District Municipality

MUNICIPAL POSITION/ENTITY	LINE OF ACCOUNTABILITY
Municipality	Citizens, communities MEC for Local Government and Housing National Council of Provinces
Executive Mayor Executive Mayoral Committee ⁷¹	District Council
Municipal Manager (municipal administration)	Executive Mayor District Council
Municipal departments	Municipal Manager/Municipal Executive Committee ⁷² Council Portfolio Committee

In its oversight role, the Executive Mayoral Committee monitors and reviews the activities of municipal officials to ensure that there is adherence to the legislative intent of the District Council. This is facilitated by assigning responsibility for specific portfolios to Mayoral Committee members who, in turn, engage with Executive Directors responsible for service delivery under these portfolios. The Municipal Manager is responsible for performance management of the Administration, and is answerable to the Executive Mayor and Council.

The latest Integrated Development Plans for the CDWM and its five local “B” municipalities⁷³ were analysed for departmental responsibilities that accommodate the ecosystem services of soil and land, air, water and biodiversity. These are presented in Table 2. It is significant that, apart from water supply, water quality and sanitation, none of the IDPs prepared by the municipalities consider the issue of unsustainable trends associated with ecosystem services of soil and land, air or biodiversity. As a consequence, the institutional arrangements outlined in the IDPs of these municipalities are not adequate for dealing with this issue.

Table 2: Municipal operational structures associated with ecosystem services in the District and Local “B” and “C” municipalities in the Cape Winelands (information is from current municipal websites and IDP reports)

⁷¹ All members of the Mayoral Committee are elected councillors.

⁷² The Municipal Manager and Executive Directors constitute the Executive Committee. Oversight can be exercised over municipal departments directly by councillors through Portfolio Committees

⁷³ Cape Winelands (2006), Witzenberg (2005), Drakenstein (2006), Breede Valley (2002), Breede River-Winelands (2005), Stellenbosch (2006)

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Municipality	Institutional Structure (Directorate: Sub-directorate)	Ecosystem services
CWDM (DMA)	<p>Public Safety and Planning: Fire Services Joint Fire Services Committee (officials from the CWDM and the local B municipalities)</p> <p>Public Safety and Planning: Disaster Management Municipal Disaster Mgmt Advisory Forum (officials from the CWDM and the local B municipalities) Public Safety and Planning: Land Use and Spatial Planning</p> <p>Community and Development Services: Municipal Health Sub-district Action Committees and Service Level Agreements (officials from the CWDM and the local B municipalities)</p> <p>Community and Development Services: Municipal Health (Water and sanitation)</p> <p>Community and Development Services: Water Quality (rivers) Water Quality Task Team (officials from the CWDM and the local B municipalities)</p> <p>Engineering and Infrastructure Services: (Water and sanitation)</p>	<p><i>biodiversity, land & soil, air, water</i></p> <p><i>biodiversity, land & soil, air, water</i></p> <p><i>biodiversity air</i></p> <p><i>water</i></p> <p><i>water</i></p> <p><i>water</i></p>
Drakenstein	<p>Head: Civil Engineering Services (Natural environment)</p> <p>Head: Planning and Economic Development (Spatial planning and land use management)</p>	<p><i>biodiversity</i></p> <p><i>biodiversity, land & soil</i></p>
Stellenbosch	<p>Economic Facilitation Services: Planning (Environmental legislation)</p> <p>Civil Engineering and Technical Services (Water and sanitation)</p>	<p><i>biodiversity</i></p> <p><i>water</i></p>
Witzenberg	Director: Technical Services	<i>none</i>
Breede River / Winelands	Commercial and Economic Services: Civil Engineering (Water supply)	<i>water</i>
Breede Valley	Head: Engineering (Air, water, ecosystem contamination)	<i>biodiversity, land & soil, air, water</i>

Key spatial planning and development frameworks relevant to the management of ecosystem services in the Cape Winelands

The core of South Africa's intergovernmental planning system for the three spheres of government are the National Spatial Development Perspective (NSDP), Medium Term Strategic Framework (MTSF), Provincial Growth and Development Strategy (PGDS) and the Integrated Development Plan (IDP). These instruments focus on the cross-sectoral, spatial and institutional strategies for development within the various spheres of government. They will be aligned when the different spheres agree on objectives, targets, strategies, projects and programmes, and delivery methods. The Presidency has been mandated to take such a process forward, in conjunction with National Treasury and the Departments of Provincial and Local Government, Land Affairs and Trade and Industry (DPLG, 2005a).

In the **National Spatial Development Perspective (NSDP)**⁷⁴, it is proposed that the bulk of Government's fixed investment is focused in areas with the potential for sustainable economic development. For areas of limited potential it is proposed that, beyond a level of basic services, Government concentrates primarily on social investment such as human resource development, labour market intelligence and social transfers. The purpose of this is to empower people in areas of limited potential with information on opportunities in areas of potential, as well as the necessary skills to enable them to move to those areas. Within the CWDM Area, Worcester (Breede Valley), Paarl (Drakenstein) and Stellenbosch (Stellenbosch) are identified as areas of high development potential, and therefore potential recipients of fixed capital investment. The PGDS and the IDPs should operationalise the intentions of the NSDP. (Policy Co-ordination and Advisory Services (PCAS), 2003)

The **Medium Term Strategic Framework (MTSF)**, also applicable at national level, includes a range of monitoring and evaluation programmes related to financial matters, and achieving certain socio-economic impacts and outcomes (Patel, 2004). A mechanism is provided for integrating IDPs within the framework, via the Office of the Presidency and the Department of Provincial and Local Government (Department of Public Service and Administration (DPSA), 2003).

The **Provincial Growth and Development Strategy (PGDS)** is a medium-term strategy for 3-5 years⁷⁵. It sets the tone for development in the province and must be aligned with

⁷⁴ *National Spatial Development Perspective* .(online). URL: <http://www.idp.org.za/NSDP/NSDP/nsdp.htm>. Accessed 31 January 2007.

⁷⁵ *Provincial Growth and Development Strategy for the Western Cape*. (online). URL: http://www.idp.org.za/documents/PGDS/Western%20Cape/2004/WC_PGDS.zip. Accessed 31 January 2007.

growth and development strategies of national government, such as the MTSF and the NSDP. The PGDS must draw on national and sector strategies, and include commitments made in terms of international treaties and protocols. The PGDS spells out the broad objectives and priority areas within which service delivery and transformation should take place (Department of Planning and Local Government (DPLG), 2005b). The broad goals of the PGDS must be translated into clearly defined programmes for implementation through annual departmental or municipal plans. As the core alignment mechanism for a province, it serves as the coordination and implementation strategy. It helps lay the basis for sustainable development and ensures that plans are economically productive and efficient, meet social needs, and address equity issues whilst building on, and taking advantage of opportunities within the constraints of a province's natural resource base (DPLG, 2005b).

Integrated Development Plans (IDPs) address planning and development at District and local municipality levels⁷⁶. Spatial planning, disaster management, finances, performance targets and economic development are covered within the IDP framework (DPLG, 2001). A key consideration is integration between all spatial and economic development planning processes. The bulk of the detailed planning of the provincial framework is done in the process of preparing municipal IDPs and should be implemented via the proposals contained in these IDPs, which should be linked to the budgets of municipalities and provincial and national sector departments. The Winelands District Municipality, as well as the local "B" municipalities have compiled IDPs.

The **Western Cape Policy Framework (iKapa elihlumayo)** is the Framework for the Development of the Western Cape Province 2004-2007 (PGWC, 2003). Its vision for guiding the long-term strategic development of the province requires a paradigm shift from welfare dependence to economic self-reliance, and its mission is to serve the people of the Western Cape with good holistic governance and sustainable use of resources and the environment.

One of its eight priorities is a provincial spatial development framework (PGWC, 2005) that will set out an integrated social, economic and environmental framework for the future of the Province. As a key component of both the infrastructure and micro-economic strategies, it will ensure that infrastructure investment and development spending has better spatial outcomes than are currently being achieved.

Two key planning frameworks are relevant to any programme for the maintenance of ecosystem services in the CWDM Area viz. **the Provincial Spatial Development**

⁷⁶ Department of Provincial and Local Government. 2001. *IDP Guide Pack. Guide 1: Guidelines*. (online) URL: http://www.idp.org.za/documents/Guides/IDP/2001/Guide_IDP_1_Guidelines.pdf. Accessed 31 January 2007.

Framework (PSDF), which is aligned with and reinforces the NSDP through its generic proposals for the province and its spatial/land use management guidelines for the local level. In turn, the **Cape Winelands Spatial Development Framework (CWSDF)** outlines the development trends and patterns in the District, and the corresponding key concerns. It establishes a strategic spatial direction for the CWDM to achieve its overall vision. Policies are proposed to guide land use management within the context of four frameworks (viz. a biophysical framework, a settlement framework, a social infrastructure, facilities and services framework, and an economic framework) (Cape Winelands District Municipality, 2005). Also of key importance for the maintenance and enhancement of ecosystem services in the District are the SDF's formulated by five local municipalities in the area.

Powers and functions of the CWDM

Schedule 4 of the Constitution of the Republic of South Africa outlines the concurrent responsibilities (competencies) of national and provincial government, expressed as functional areas of legislative competence⁷⁷. Section 5 in turn specifies responsibilities that are exclusive to Provincial government. In terms of Section 84 of the Municipal Structures Act, 1998 (Act 17 of 1998, as amended), powers and functions assigned to the CWDM legally oblige it to provide, *inter alia*, the following at District level:

- Integrated development planning for the district municipality as a whole, which includes establishing a framework for the Integrated Development Plans (IDPs) of all "B" municipalities in its area;
- Potable water supply systems;
- Domestic waste-water and sewage disposal systems;
- Municipal roads that form an integral part of a road transport system for its area as a whole;
- Municipal airports serving its area as a whole;
- The determination of a waste disposal strategy, regulation of waste disposal, and the establishment, operation and control of waste disposal sites, bulk waste transfer facilities and waste disposal facilities for more than one local municipality in the district;
- Fire fighting services serving the area of the district municipality as a whole, which includes:
 - planning, co-ordination and regulation of fire services;
 - specialised fire fighting services such as mountain, veld and chemical fire services;
 - co-ordination of the standardisation of infrastructure, vehicles, equipment and procedures;
 - training of fire officers.
- Municipal healthcare services;

⁷⁷ Schedules 4 and 5 of The Constitution of the Republic of South Africa, 1996, Act 108 of 1996.

- Promotion of local tourism;
- Municipal public works relating to any functions assigned to the CWDM; and,
- The imposition and collection of taxes, levies and duties related to functions assigned to the CWDM in terms of national legislation.

Any contributions that the CWDM can make to the protection and management of ecosystem services must occur within the context of these assigned responsibilities, and it is clear that the CWDM has no direct executive function in this task. However, there is much scope for cooperative governance, the provision of guidance to local municipalities by the CWDM, and collaborative work with Non-Governmental Organisations (NGOs) and non-governmental initiatives in ensuring the protection and management of ecosystem services.

Effective governance for maintenance of ecosystem services in the CWDM Area

Several issues were raised by key stakeholders in the SEA scoping process relating to how governance affects the maintenance of ecosystem services in the CWDM Area. The issues concern matters of public policy and institutional “style”, the capacity of stakeholders and institutions for environmental management, and the effectiveness of the municipalities in the Cape Winelands District in fulfilling their roles and responsibilities.

Despite the constraints that these issues may or may not place on effective governance for ecosystem management, a District Intergovernmental Forum (DIF), similar to the Forum at National Level, has been established that brings together district and local level municipalities in the CWDM Area. This provides a potential forum for the development of effective cooperative governance for the management of ecosystem services in the CWDM Area.

Appendix B : Existing Initiatives available for the Protection of Ecosystem Services

Examples of existing initiatives of relevance in the Cape Winelands District Municipal Area are briefly summarised in the table below. The website addresses are provided as references as well as sources of further information.

Initiative	Description
<p>1. Cape Action for People and the Environment (C.A.P.E.) Programme.</p> <p><u>Website:</u> www.capeaction.org.za</p>	<p>Partnership programme that aims to conserve and restore the biodiversity of the Cape Floristic Kingdom, as well as the adjacent marine environment, while delivering benefits to the people of the region.</p> <p>The C.A.P.E. biodiversity strategy and action plan was prepared in 2000 and includes a long-term strategy and vision for the biodiversity conservation of the CFR and a five year action plan and investment programme to address conservation priorities.</p> <p>C.A.P.E is coordinated by the C.A.P.E Co-ordination Unit, which is hosted by the South African National Biodiversity Institute (SANBI). Responsibility for implementing the strategy lies with agencies including CapeNature, The Department of Environmental Affairs and Development Planning, The Department of Water Affairs and Forestry and the Provincial Department of Agriculture: Western Cape, as well as SANBI and several NGOs.</p> <p>The C.A.P.E. programme comprises six components, two of which are directly relevant to this Environmental Strategy, <i>viz.</i> Component 5.1: Undertaking fine-scale biodiversity planning; Component 5.2: Integrating biodiversity in land-use decision-making, which includes:</p> <ul style="list-style-type: none"> § Integrating biodiversity plans into spatial development frameworks and decision-making; § Strengthening land-use regulation; and § Building institutional and individual capacity in municipalities in priority areas. <p>Some of the initiatives⁷⁸ that have been catalysed by C.A.P.E., and which are particularly relevant to sustainable development in the area of the Cape Winelands District Municipality Area, are:</p>

⁷⁸ WWF. (2006). World Wide Fund for Nature South Africa. (online) URL: <http://www.wwf.org.za/fynbos.htm>. Accessed on: 3 October 2006.

	<p>§ <u>Conservation incentives on private and communal land</u>: The aim of the project is to establish biodiversity corridors in priority non-state areas and to conserve vital lowland habitat. It focuses on the empowerment of civil society and the development and use of co-operative management models and incentive schemes.</p> <p>§ <u>Flower Valley Conservation Trust</u>: This project aims to develop the public image and market position of wild fynbos harvested in a sustainable manner, establishing it as a recognized and viable alternative to other forms of land-use. In this way, the project aims to contribute to biodiversity conservation and also aims to develop capacity within previously disadvantaged communities through a co-management approach to business.</p> <p>§ <u>Slanghoek Valley hotspot identification project</u>: This project is a fine scale conservation plan for the area that will provide land owners, land use planners and conservation agencies information about important biodiversity areas that must be conserved and areas which can be developed. This initiative was started by landowners and the Department of Agriculture, flowing out of the LandCare programme.</p> <p>In addition, the South African National Botanical Institute (SANBI) is playing a lead role in the development of fine scale biodiversity plans in five priority areas of the CFR which include the Upper Breede River. The other areas are the Riversdale Coastal Plain, Nieuwoudville, North West Sandveld and the Saldanha Peninsula. This initiative forms part of the implementation phase of the C.A.P.E. programme. (See also Initiative No. 4 "Putting Biodiversity Plans to Work").</p>
<p>2. National Spatial Biodiversity Assessment</p> <p><u>Website:</u> http://www.sanbi.org/frames/biodiversityfram.htm.</p>	<p>This project is co-funded by the Department of Environmental Affairs and Tourism (DEAT) and the South African National Botanical Institute (SANB).</p> <p>The NSBA forms part of the National Biodiversity Strategy and Action Plan (NBSAP) and is required in terms of the new Biodiversity Act. The NSBA and will be updated every five years, or more frequently as new data becomes available.</p> <p>The aims of the NSBA are to:</p> <ul style="list-style-type: none"> • identify broad spatial priority areas for conservation action; • make recommendations about options for conservation action in each priority area; and • provide a national context for conservation plans at the sub-national scale

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	<p>The NSBA covers terrestrial, river, estuary and marine components. Initial results have identified nine broad priority areas for conservation action in South Africa which include the Cape Floristic Kingdom. The technical reports from these 4 components and the NSBA Summary can be downloaded at : http://www.sanbi.org/frames/biodiversityfram.htm</p>
<ul style="list-style-type: none"> Threatened Species Programme (TSP) and CREW (Custodians of Rare and Endangered Wildflowers) <p><i>Website:</i> http://www.sanbi.org/frames/biodiversityfram.htm.</p>	<p>This initiative aims to facilitate the conservation of South Africa's rare and endangered species. There is, however, a lack of information on rare and newly described species, as well as on the threats to these species in specific areas. The TSP and the CREW project were developed with the specific aim of obtaining this information.</p> <p>The CREW programme, which has been in operation for 3 years, comprises largely members of the public who volunteer to undergo training on plant identification and then collect data on rare and endangered plants in their local areas. So far 7 interest groups and communities have become involved in this project.</p> <p>SANBI and the Botanical Society of South Africa are now assisting CREW to establish civil society groups around the country to conserve rare plant populations.</p>
<p>3. Botanical Society of South Africa: Putting Biodiversity Plans to Work Project (2004 – 2006)</p> <p><i>Information on this project from biodiversity specialist study undertaken for this SEA.</i></p> <p><i>For further information:</i> http://www.capeaction.org.za/</p>	<p>There are three main broad scale biodiversity conservation programmes that have produced plans that cover parts or all of the CWDM Area, i.e. the C.A.P.E initiative, the Succulent Karoo Ecosystem Programme (SKEP), and the National Biodiversity Strategy and Action Plan (NBSAP). These biodiversity conservation plans have however, all been produced at a scale of 1:250 000 and indicate geographic priorities for biodiversity conservation. Some fine scale planning has already been undertaken for the Cape lowlands Renosterveld and other fine scale planning is currently underway for other priority areas identified in these broad scale biodiversity conservation plans.</p> <p>The Putting Biodiversity Plans to Work (PBPTW) project was a pilot study focused on developing fine scale biodiversity priority maps for seven local municipalities, one of which was the Drakenstein Local Municipality. Outputs from this project include a package that provides relevant biodiversity information for the ongoing development of the Drakenstein Municipality's Spatial Development Framework.</p>
<p>4. SKEP (Succulent Karoo Ecosystem</p>	<p>The Succulent Karoo Ecosystem Programme</p>

<p>Programme)</p> <p><u>Website:</u> http://www.skep.org/</p>	<p>(SKEP) developed out of a one-year planning initiative directed at establishing broad consensus on a set of conservation targets for the Succulent Karoo Biome. As a result of this planning process an ecosystem profile was produced for the Critical Ecosystem Partnership Fund (CEPF) that identifies key conservation areas for investment. Conservation targets have been set for the next 20 years that focus on the conservation and protection of 135 vegetation types.</p>
<p>5. The Biodiversity and Wine Initiative (BWI)</p> <p><u>Website:</u> http://www.bwi.co.za/</p>	<p>The Biodiversity and Wine Initiative (BWI), with offices in Stellenbosch, is a partnership between the South African Wine Industry, individual farmers and the conservation sector.</p> <p>This initiative aims to incorporate biodiversity best practice guidelines into wine production. The purpose is to prevent further loss of habitat in critical areas, increase the total area set aside as natural habitat in contractually protected areas, promote farming practices that support biodiversity and sustainability, and provide a competitive advantage for wines produced by participants.</p> <p>The primary strategy of the BWI is to enlist interested producers as members or champions of the initiative, who will implement the biodiversity guidelines, conserve critical ecosystems and incorporate a biodiversity story into their winery experience.</p>
<p>6. Integrated Production of Wine (IPW)</p> <p><u>Website:</u> http://www.bwi.co.za/ipw</p>	<p>IPW is a voluntary auditing system that was developed to manage the environmental impacts of wine production. The system operates on an auditing basis according to guidelines, which encourage good agricultural practices. There are detailed sections in the guidelines, which cover biodiversity, soil and land management, amongst other factors.</p>
<p>7. CapeNature Conservation Stewardship Programme</p> <p><u>Website:</u> http://www.capenature.co.za/</p>	<p>The Cape Nature Conservation Stewardship Programme (CSP) is a collaborative initiative that provides incentives for private landowners to protect biodiversity on their land.</p> <p>Key participants in the CSP are landowners, primarily farmers, as well as the operational staff within CapeNature. All involvement in the programme is voluntary, although CapeNature has actively promoted the programme to landowners, and has disseminated information to farmers, encouraging them to participate in the programme.</p> <p>Three stewardship options are offered to private landowners that would like to set aside land for conservation or sustainable use. These options are: contract nature reserves; co-operation agreements</p>

	and conservation areas.
<p>8. River Health Programme</p> <p><i>Website:</i> http://www.csir.co.za/rhp/rhp_background.html</p>	<p>The South African River Health Programme (RHP) primarily makes use of biological indicators (e.g. fish communities, riparian vegetation, aquatic invertebrate fauna) to assess the condition or health of river systems. The rationale for using biological monitoring is that the integrity of biota inhabiting river ecosystems provides a direct, holistic and integrated measure of the integrity or health of the river as a whole.</p> <p>The RHP is a source of information on the ecological state of river ecosystems in South Africa, which can be used to support the rational management of these natural resources.</p>
<p>9. Working for Water Programme (DWAF)</p> <p><i>Website:</i> http://www.dwaf.gov.za/wfw</p>	<p>The Working for Water (WfW) programme was launched in 1995 to fight against invasive alien plants.</p> <p>The programme is administered through the Department of Water Affairs and Forestry and is based on partnerships between local communities and government (including Departments of Environmental Affairs and Tourism, Agriculture, and Trade and Industry, and provincial departments of agriculture), conservation and environment groups, research foundations and private companies.</p> <p>Since the beginning of the programme in 1995, more than a million hectares of invasive alien plants have been cleared. This has provided jobs and training to approximately 20 000 people from among the most marginalized sectors of society. The programme is globally and nationally recognised for its achievements.</p>
<p>10. Working for Wetlands</p> <p><i>Websites:</i> http://www.sanbi.org/research/wetlandprog.htm</p>	<p>As a dry country, but endowed with exceptionally rich biodiversity, South Africa has particular reason to value its wetlands. Wetlands the world over are widely acknowledged for providing important ecosystem services. In South Africa many wetlands have been degraded or irreversibly lost as a result of human activities. In response to this, the departments of Environmental Affairs and Tourism, Water Affairs and Forestry, and Agriculture, together with partners in provincial and local government and civil society, particularly the Mondi Wetlands Project, have jointly launched the Working for Wetlands programme.</p> <p>This programme is focused on the rehabilitation of wetlands, but also addresses their protection and sustainable use. Funding for the programme's activities is provided by the Department of Environmental Affairs and Tourism through the South African National Biodiversity Institute</p>

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	<p>(SANBI). The programme enables its government partners to meet policy objectives and commitments to several international agreements, such as the Ramsar Convention on Wetlands.</p> <p>Emphasis is placed in the programme on raising awareness and influencing behaviour and practices impacting on wetlands, rather than focusing exclusively on engineering solutions. All rehabilitation interventions are undertaken within the context of improving the integrity and functioning of the ecosystem, and include measures that address both causes and effects of degradation.</p>
<p>11. Working on Fire (WoF) Programme (the Forest Fire Association)</p> <p><u>Websites:</u> http://www.info.gov.za/issues/govtprog/environment.htm</p>	<p>The Working on Fire Programme is a labour-intensive initiative that was developed to control wild fires in South Africa.</p> <p>The main objectives of the project are to: limit the effect of veld fires on poor communities; create opportunities for in the activities of Fire Protection Associations; and develop skills and capacity in affected communities.</p>
<p>12. Landcare/ Area wide planning</p> <p><u>Websites:</u> http://www.nda.agric.za/docs/Landcarepage/landcare.htm http://www.wcape.agric.za</p>	<p>LandCare is an integrated community-based approach to the sustainable management and use of agricultural natural resources.</p> <p>The overall objective of LandCare is to optimise the productivity and sustainability of natural resources to, <i>inter alia</i>, ensure food security and job creation.</p> <p>LandCare operates on specific projects, developing partnerships between government, LandCare groups and communities, NGOs and industry. Emphasis is placed on ownership of the process by the local community involved and on increasing awareness of land care issues. The LandCare project also provides short term employment in activities such as farm planning, clearing of alien invasive species and constructing erosion prevention structures in Landcare areas.</p>
<p>13. Catchment Management Agency establishment</p> <p><i>Information on this project from water specialist study undertaken for this SEA.</i></p>	<p>The National Water Policy and the National Water Act envisage the empowerment of local communities in the management of their water resources. This will primarily be achieved through Catchment Management Agencies which will be established for each of the country's 19 Water Management Areas (WMAs). Catchment Management Agencies are statutory bodies, with jurisdiction over a defined Water Management Area. The Cape Winelands District Municipality Area falls within two of these WMAs - the Berg and Breede-Overberg WMAs.</p> <p>A proposal for the establishment of the Breede-</p>

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	<p>Overberg CMA has already been submitted to the Minister of Water Affairs and Forestry, however, the public consultation process in the Berg WMA is still in progress. Local authorities are able to make a valuable contribution to the public consultation process, and to the constitution of the CMA reference group and the Catchment Management Committee.</p> <p>Once the CMAs are established they will rely on local authorities to provide them with information on the state of water resources from which municipalities abstract their water (i.e. dam levels, groundwater levels and water quality). Municipalities will also play an important role in the management of water resources through their influence on land-use and the water consumption patterns of citizens and industry.</p>
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Appendix C: Comments and Response Report

**FINAL REPORT ON COMMENTS RECEIVED ON THE 1st DRAFT STRATEGY
REPORT**

CLIENT: CAPE WINELANDS DISTRICT MUNICIPALITY

**PROJECT: STRATEGIC ENVIRONMENTAL ASSESSMENT FOR THE COUNCIL
OF THE CAPE WINELANDS DISTRICT MUNICIPALITY**

DATE: APRIL 2007

1. INTRODUCTION

The Cape Winelands District Municipality is responsible for managing a unique municipal area in the Cape. It has abundant natural resources and a unique built environment, together with a very particular social history.

The vision for the Cape Winelands District Municipality (CWDM) area, as presented in the spatial development framework (2005) is of “a safe, prosperous and united Cape Winelands where all its people enjoy high standards of living.” Three of the four objectives underpinning this vision relate to the creation of quality human settlements and infrastructure and the growth and diversification of the economy. However, the first objective listed is to “conserve and protect the natural environment.” This is of vital importance if the other three objectives are to be achieved.

The effective management of the ecological resource base is also a cornerstone of sustainability, a key principle adopted in the integrated development planning process, which is the primary instrument that governs local development. The principles of the Development Facilitation Act No.67 of 1995 (Chapter 1, Section 3 (1) (viii)), which were adopted in the Municipal Systems Act (No. 32 of 2000), require the encouragement of “environmentally sustainable land development practices and processes.”

An important way in which to integrate the objectives of sustainability into strategic decision-making is through Strategic Environmental Assessment (SEA). Undertaking an SEA was identified in the District Municipality’s Spatial Development Framework (SDF) as one of the key strategic projects aimed at realising the recommendations contained in the SDF.

The District Council has therefore commissioned the CSIR to undertake an SEA which aims to provide a decision-aiding tool for the management of ecological resources within the District. The focus of this study is on formulating a strategy and implementation plan to sustain the ecosystem services on which the development of quality human settlements and the diversification of the economy depend. The first stage in this process is the Scoping Phase. The aim of this phase is to identify the key issues that should be

addressed in the project. Where these issues need to be investigated further, they inform the development of terms of reference for specialist input into the strategy.

The scoping process was started in 2006 with a Visioning Workshop that was held in Stellenbosch. Thereafter a Scoping Workshop was held in Worcester on 16 May 2006. At this workshop the participants have identified a number of key issues, constraints and challenges that should be considered in the SEA. The draft Scoping Report was then circulated to over a hundred Interested & Affected Parties, while it was also advertised in all the newspapers of the district. Copies of the draft Scoping Report were made available to the public throughout the district at various venues. The Scoping Report was then finalized. Thereafter a draft Strategy Report was produced and advertised for comment in newspapers in the district. Identified key stakeholders were also contacted and requested to comment. The 2nd draft Strategy Report was then produced. This report will be advertised for comment in conjunction with the draft Strategic Environmental Management Plan (SEMP) in May 2007. The next stage in the project is the drafting of the SEMP.

This report is a summary of the comments received on the 1st draft Environmental Strategy Report and responses to these.

2. COMMENTS RECEIVED

STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
<p>Samantha Ralston, Don Kirkwood, Anton Wolfaardt and Antoinette Veldman (CapeNature)</p>	<ol style="list-style-type: none"> 1. The document is less of an SEA; more of an attempt to identify various interventions needed within various sectors. 2. An SEA requires simultaneous assessment of various land-use requirements. 3. SEA should be explicit about where compromise around conflicts is needed and it should maximise synergy wherever possible, in order to arrive at sensible area and resource allocation to meet various sector's needs. 4. Crucially, from a conservation perspective, it should designate where these should be achieved spatially. 5. SEA must be amended to present a coordinated, integrated and spatially explicit way forward to address needs of various sectors. 	<p>Many of the key elements and principles of SEA were used in the formulation of the process for this project and the compilation of the document, for example, the use of visioning, scoping, the focus on strategic issues and the identification of environmental opportunities and constraints for development. However, it is acknowledged that the process can be better understood as a strategy development process for the effective management of ecosystem services by the Cape Winelands District Municipality. The outcome of the process is therefore called a strategy report rather than an SEA report. This explanation will be inserted in Section 1 of the report.</p> <p>The spatial expression of priority conservation areas, as well as the spatial identification of land use conflict is certainly critical. However, before this can be undertaken in an accurate way, further fine scale biodiversity conservation planning is required. Broad biodiversity conservation areas have been identified in the Winelands Spatial Development Framework and in the CAPE project. However, there is an urgent need for these maps to be refined before meaningful spatial priorities can be identified. Such fine-scale biodiversity planning will be identified in this project as a priority action that needs to be initiated or facilitated by the District, in partnership with other organizations such as CapeNature (see also response to Comment 13 below).</p>

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STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
		<p>The main objective of this project has been to identify the strategic environmental management priorities and actions for the District, based on a comprehensive strategy. Although general recommendations are included in the strategy report, more specific short-term priorities will be articulated in the Strategic Environmental Management Plan (SEMP) that will be drafted in the next phase of the project. One of these priorities will be to ensure that fine-scale biodiversity planning is undertaken for priority areas within the Cape Winelands.</p>
	<p>6. It might be useful to provide some context to the SEA and Strategy Report. This should touch on why this project was initiated, who the report is targeted at, who is responsible for implementing the actions identified, what the legal context is and how this initiative relates to/informs/is informed by other Initiatives (e.g. SDF's, IDPs, bioregional plans, the PSDF).</p>	<p>More detail on the context for the project has been provided in Section 1 of the Strategy Report.</p>
	<p>7. Creating links with other strategies is an important way to ensure that this document is 'given life' and not seen as just another of the many reports that are produced.</p>	<p>This is a very important point. The link between this strategy and the Spatial Development Plan has been made more explicit in Section 1 of the report.</p> <p>Specific recommendations have been made in objective h) of the strategy related to the inclusion of environmental priorities in the IDP and SDF processes. The Department within the Municipality that is responsible for the development of the SDF is also responsible for the development of this strategy, which should facilitate easier coordination between these initiatives. In addition, the heads of all the relevant departments within the District Municipality will be invited to participate in the development of the</p>

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STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
		Strategic Environmental Management Plan (SEMP). This aims to ensure greater linkages between the outcomes of this process and those that are undertaken within the rest of the District Municipality.
	8. We suggest that the links/interdependency between the various sources of ecosystem services could be made more explicit (e.g. well managed biodiversity, is also good for water production).	This point is added to Section 3.2 of the strategy.
	9. The economic argument for maintaining ecosystem services could also be made stronger (e.g. it is more cost effective to look after our wetlands than to replicate their services with engineering solutions).	This point is added to Section 3.2 of the strategy.
	10. The table identifying trends and pressures implies that fragmentation is the biggest threat to biodiversity. Although fragmentation could be read to include transformation and degradation, we suggest that it be made explicit that transformation, fragmentation and degradation (due to poor fire management and invasive alien plants) poses a threat to biodiversity. It might be useful to unpack to what extent the major drivers (e.g. mining, agriculture, urban expansion) are contributing to this change.	The relevant sections in the table have been reworded to explicitly indicate that transformation, fragmentation and degradation pose a threat to biodiversity.
	11. The last line of the first paragraph in the above table states that “the situation is exacerbated by the fact that the most severely transformed and fragmented areas of high biodiversity value, lie outside of formally protected	The table in the Strategy Report has been changed as suggested.

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STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
	<p>areas". This is a bit ambiguous. It would be more worrying if most severely transformed and fragmented areas of high biodiversity value were within protected areas! Perhaps it would be clearer to state that, due to the incredibly diverse biodiversity of the region, the formal protected area network is not able to protect an adequate representation of the biodiversity and many areas of high conservation value therefore fall outside of protected areas.</p>	
	<p>12. The report is quite generic. It might be useful to specifically and preferably spatially identify the major ecosystem services in the District. These should be prioritised, with regards to the importance of that service to the well-being of the District (and wider community) and linked to clear management requirements/ land use guidelines. To a limited extent a fine-scale conservation plan for the area could help with this, but the aims of these initiatives are slightly different. The primary aim of fine scale conservation plans is biodiversity conservation. While these plans will identify many ecosystems services, some ecosystem services are not directly linked/dependent on areas identified as having a high conservation value from a biodiversity perspective.</p>	<p>This is an important point and will go forward for discussion at the SEMP stage of this project. Such spatial representation is an ideal that the District should systematically work towards. Currently however, insufficient information is available. For example, there is a severe lack of air quality monitoring information and fine-scale mapping for biodiversity conservation areas.</p> <p>In addition, there are initiatives that are currently in progress that will need to inform such mapping. For example, the River Health Programme has provided information on the status of the Berg River however not yet on the Breede River (although such a study is planned). The prioritization of water resources will be undertaken as part of the National Classification System proposed in the National Water Resource Strategy. This system is currently being developed and therefore its implementation has not yet begun. Also, an application has been submitted to UNESCO for a biosphere reserve within the Cape Winelands. This reserve will be planned and managed according to a bioregional planning approach that includes core, buffer and transitional zones according to the conservation status of the area. Biodiversity</p>

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STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
		<p>mapping will need to inform the designation of these zones and the zones will, in turn, need to inform a map indicating ecosystem priorities in the District.</p> <p>The prioritization of ecosystems suggested in the comment is likely to be a controversial task that should go beyond the scientific domain and include the subjective values of communities and other stakeholders. This will need to be undertaken as a specific participatory project or series of projects in various areas within the District that link to existing initiatives such as those described above.</p> <p>In the meantime, the District can engage with these existing initiatives and ensure that the appropriate monitoring and mapping is started, in partnership with other stakeholders (such as CapeNature) to ensure that the data to support the identification of priority ecosystems is available.</p>
	<p>13. With regards to the proposed strategic action to refine existing conservation priority maps, CapeNature would support this initiative, which should be well coordinated with related projects. For example, an initiative is currently underway to develop a fine-sale conservation plan for the Upper Breede Valley area. CapeNature would eventually like a strategic fine scale spatial conservation plan for the entire Western Cape to help guide land use decision-making, through identifying, at a usable scale, areas where there are biodiversity constraints to development as well as areas where development would be appropriate.</p>	<p>Thank you for this comment. We will include this information in the development of the SEMP.</p>

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STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
	<p>14. Climate change is a cross-cutting theme and possibly the most serious threat to most of our ecosystem services. Perhaps it warrants a separate section to unpack the threat further and summarise appropriate responses/strategic actions?</p>	<p>Objective c) has been re-phrased to read “In the long-term the <i>economic activities within the Winelands adapt to dryer and hotter climates, thereby ensuring that climate change does not threaten their sustainability.</i>” The strategic actions listed under objective c) include the initiating a stakeholder forum that aims to find ways of protecting ecosystem services in a changing climate.</p> <p>Objective l) has also been rephrased to include the raising of awareness amongst stakeholders, not only of the impact of climate change on the agricultural sector, but also generally on the provision of ecosystem services, such as water. The first strategic actions listed under objective k), has also been expanded to specifically mention climate change issues.</p>
	<p>15. We are concerned that the strategic actions form quite an extensive list. Bearing in mind that there are very real capacity constraints and potential conflicts between various sectors and needs, we urge that actions be prioritised to ensure maximum effectiveness with minimum resources. This applies to both at the level of prioritizing which identified strategic actions should be implemented and prioritising where and how the strategic actions themselves are implemented. There are many opportunities to create synergies between related initiatives and we suggest that in addition to those already identified, links with the CAPE Land Use Component should be forged.</p>	<p>Agreed, prioritization is critical. The purpose of the strategy is to provide general direction for the next 8-10 years. The SEMP will then refine this to reflect an initial prioritization exercise for the short-to-medium term. This explanation has been inserted in Section 1 of the Strategy Report.</p>
<p>Susan Parker-Johnston (Franschoek</p>	<p>16. Inadequate time for public comment on Draft Strategy Report</p>	<p>A second opportunity for commenting on the strategy report will be provided from the 11 May to 1 June 2007, when the draft SEMP will be advertised in conjunction with the 2nd draft Strategy Report.</p>

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STAKEHOLDER/ ORGANISATION	COMMENT RECEIVED	RESPONSE
Conservation Trust)	<p>17. Additional environmental studies should also have been conducted namely:</p> <ul style="list-style-type: none"> • Energy Use • Environmental Fragility • Waste Disposal – particularly restaurant and accommodation waste • Recycling • Natural Energy Sources e.g. water, wind, solar • Tourism Impact e.g. vehicle and noise pollution by, suppliers to the restaurant and accommodation establishments, tourist buses and tourist vehicles • Packaging – foodstuffs etc 	<p>It is not within the scope and budget of this study to conduct additional specialist studies. However, we have selected the main ecosystem services within the District as the focus of the specialist input (i.e. land, water, air and biodiversity) and issues concerning environmental fragility are addressed in all these studies and reflected in the strategy report. The need for the development of an integrated energy plan that comprises both conventional electricity supply as well as the development of alternative energy options is identified within objective j). Issues concerning waste disposal and recycling are addressed in objectives m) and n).</p>
	<p>18. The strategy report should also include the initiatives and policies etc. that, as an organisation in its own right, the CWDM will adopt and implement e.g. a CWDM Green Code of Ethics. In leading by example we believe the opportunity for environmental sustainability and responsibility and not least achieving its vision will significantly increase.</p>	<p>This comment will be carried forward to the final stage of the project when the SEMP is developed. The SEMP will include more detailed projects that the Cape Winelands District Municipality will undertake.</p>
	<p>19. The report has omitted to acknowledge the significance of eating establishments, a prominent economic activity.</p> <p>20. The Trust questions the premise that tourism is centered on the wine industry. In Franschhoek, aside from its natural beauty, the primary tourism ‘pull factor’ is it’s restaurants with wineries looking to establish such facilities. Waste derived from the restaurant industry, as well as accommodation is significant to say the least and their impact on the environment should be</p>	<p>Agreed. However, the report has mainly focused on nature-based tourism as the focus of this project is on the services that ecosystems provide. The point concerning waste derived from the restaurant industry has, however, been incorporated into the constraints and strategic actions listed in objective n).</p>

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	comprehensively considered in an environmental strategy report.	
	21. The services provided to the people of the Cape Winelands District should also include the utilisation of natural energy sources in particular, wind, water and solar as well services to enable the use of grey water and policies to ensure that the future built environment is energy efficient e.g. double glazing, wall and roof insulation, solar panels.	The main purpose of this strategy report is to identify the key strategic areas where the District Municipality should focus its attention. The need for the development of an integrated energy plan that comprises both conventional electricity supply as well as the development of alternative energy options is identified as a strategic action within objective j).
	22. In general the terminology used limits the opportunity to measure success as it is not at all clear. In addition at least three of the primary defining criteria of any objective, it is clear (transparent), it can be measured and it has a time frame are not present, thus many of the objectives are in fact not objectives. For example, under 4.4 Strategic Actions the objectives a) – n) are not measurable.	The objectives were developed to provide broad strategic direction over the next 8-10 years for environmental management in the District Municipality. More specific projects and related indicators will be identified in the SEMP stage for the short-term (1-2 years) implementation of the strategy. Projects will also be listed, although more broadly, for the medium term (2-5 years).
	23. In relation to the Strategic Goal: <i>“High level of stakeholder capacity manifested through the availability of information, awareness and education”</i> ; the Trust suggests that merely informing and making aware is insufficient, further a) and b) in there current format can not be measured.	<p>Agreed, merely informing and making stakeholders aware is insufficient. This strategic goal should, however, be read in conjunction with the other goals, which aim to ensure that environmental considerations are incorporated into economic activities (goal 1), law enforcement (goal 2), land use planning (goal 3) and service provision (goal 5).</p> <p>Concerning the measurability of objectives a) and b): the objectives will be refined in the strategy phase and initial indicators for measuring progress towards achieving these objectives will be</p>

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		included in the SEMP.
	<p>24. Establishing collaborative relationships with the commercial sector is an opportunity that has not been listed e.g. Agama for renewable energy and English Electric for reduction in water consumption and pollution in wine production.</p>	<p>Although specific companies will not be mentioned, the possibility of exploring collaborative partnerships with the commercial sector will be added to a), b), j) and m).</p>
	<p>25. Furthermore the opportunity to access vital knowledge and experiences through established World benchmarks, International bodies and there initiatives and imperatives is not considered as an opportunity. For example,</p> <ul style="list-style-type: none"> • Journal of Sustainable Tourism • World Wildlife Fund Publications • World Tourism Organisation (WTO) - Sustainable Tourism Development: Lessons for Local Planners, WTO, 1993 – www.world-tourism.org • Organisation for Economic Co-operation & Development (OECD) – Environmental Indicators • World Travel & Tourism Council (WTTC) – www.wttc.org • Green Globe – Established by WTTC in 1994 • Ecotourism Society - Founded to foster synergy between conservationists, researchers and outdoor travel entrepreneurs (www.ecotourism.org) • Environmental Codes of Conduct for Tourism – Tourism Council Australia • Sustainable Tourism Principles – Worldwide Fund for Nature and Tourism Concern 	<p>This opportunity has been added to objectives b) and g).</p>

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	<p>26. <i>In relation to the Strategic Goal, “Long-term ecological, economic and social sustainability is assured in the agricultural sector through large-scale substantive adoption of crops, products and farming methods suitable to dryer and hotter climates”, the Trust suggests that it would be first necessary to establish if in fact a market exists for crops that enjoy dryer and hotter climates before implementing this.</i></p>	<p>Agreed. The focus should rather be on generally ensuring the sustainability of the economic base of the Cape Winelands under conditions of climate change. This objective has therefore been re-phrased to read <i>“In the long-term the economic activities within the Winelands adapt to dryer and hotter climates, thereby ensuring that climate change does not threaten their sustainability. “</i></p>
	<p>27. Conservation legislation should also be enforced e.g. the National Heritage Resources Act</p>	<p>Objective e) focuses on the enforcement of environmental legislation (including that focusing on conservation). The 6th point under “strategic actions” has been expanded to place a greater emphasis on ensuring that enforcement takes place.</p>
	<p>28. In addition collaboration is necessary with the provincial and national heritage authorities charged with the management of the cultural landscape, Heritage Western Cape and South African Heritage Resources Agency respectively.</p>	<p>This point has been incorporated into the 4th strategic action under objective e).</p>
	<p>29. Finally the Winelands Cultural Landscape, its designation as a National Heritage Site and its status on the tentative world heritage list of UNESCO should be viewed by the CWDM as a control imperative.</p>	<p>The development of a heritage policy is listed as a strategic action (see 4th point) under objective e). This action has been expanded to specifically mention the status of the Winelands Cultural Landscape as a National Heritage Site and its status on the tentative world heritage list of UNESCO.</p> <p>The opportunities listed under objective e) have been expanded to include the status of the Winelands Cultural Landscape as a National Heritage Site and its status on the tentative world heritage list of UNESCO.</p>

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<p>Melissa Naiker (DEA&DP (Provincial and Regional Planning Policy) & The C.A.P.E. Land Use Advisor)</p>	<p>30. More specific information is required in terms of how this SEA process will address factors that impact development regulation, natural resource management and biodiversity conservation across the whole DMA.</p>	<p>The purpose of this report is to set the general direction for environmental management in the Cape Winelands District Municipality. It includes strategic actions related to the incorporation of environmental considerations into economic activities (goal 1), law enforcement (goal 2), land use planning (goal 3) and service provision (goal 5). In the next phase of the project a SEMP will be drafted that includes more specific project priorities for moving towards the strategic direction set in the strategy.</p>
	<p>31. The SEA also needs to assess what the current situation is w.r.t. land-use. The practical output of this process should be a map, where the status quo (i.e. state of ecosystem service: CWDM) i.t.o current management, threats and opportunities (and non-negotiables) to secure ecosystem services within the CWDM.</p>	<p>See response to Comments 1 and 13 above.</p>
	<p>32. Under the title "Trends and Pressures" on page 8, w.r.t. biodiversity: The draft strategy report only covers biodiversity in terms of increasing fragmentation - it is important to include possibility of total loss of fragments (e.g. extinction of species/habitat types/total transformation).</p>	<p>This point has been added to the table on page 8.</p>
	<p>33. An additional pressure is the impact of mining for materials to supply the building industry in the Cape. There are quite clear geology-vegetation associations in the CFR, and sand and gravel mining, for instance are leading to sand fynbos and renosterveld remnants being lost in agricultural landscapes where they have been</p>	<p>This point has been added to the list included in the first row of the table on page 8.</p>

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	reasonably safe, as these remnants are often on land that cannot be economically put under the plough.	
	34. Also, with regard to fire, in addition to uncontrolled and inappropriate use of fire as a management tool, it should also be recognized that species loss is also promoted by the non-compliance with required burn strategies on properties where fire has been deemed necessary to preserve biodiversity- especially in cases where "design with nature" type housing developments have been approved in biodiversity-rich landscapes.	This point has been added to the list included in the first row of the table on page 8, as well as to the constraints listed in Objective i).
	35. Strategic Goal: " <i>Sound land use/development planning and resource management</i> ": Page 26 Objective g); under opportunities, there is mention of biodiversity fine scale planning for the Drakenstein Municipality. Although the Putting Biodiversity Plans to Work Project produced products with very good information on biodiversity for the Drakenstein Municipality, I understood that it was not a fine scale biodiversity plan and could not be considered without additional ground truthing. Therefore I do not think it appropriate that you mention it as a fine scale plan but should rather say that there is a foundation product (or some words to that effect) from the Putting Biodiversity Plans to Work Project for that Municipality. Especially as there is mentioned as a constraint the lack of fine scale biodiversity plans. Therefore suggest rewording.	Suggested rewording has been made on page 26.
	36. Under strategic actions bullet point 5 (ensuring development applications adhere to guidelines), include the Urban Edge guideline as one of the examples, given	Suggested amendment has been made to point 5 of objective g).

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	its importance.	
	37. Strategic Goal: “ <i>Sound land use/development planning and resource management</i> ”: Page 29, Objective h; Same bullets here as mentioned under objective g, suggest rewording the bullet in light of above comment.	Suggested amendment has been made to the opportunity listed under objective h).
	38. Under the last bullet; an additional strategic action should be to align/coordinate with any provincial/national capacity building programmes re: biodiversity/ecosystem services and land-use planning.	The need for such alignment to provincial/national capacity building programmes has been added to the last point under strategic actions for objective g).
	39. Additional strategic action should be consideration of- and striving to implement the policies set out in the PSDF, especially policies pertaining to the protection of agricultural and biodiversity resources. Future SDF's should also be aligned with the Provincial SDF.	This comment is included the 1 st strategic action listed under objective h).
Ruan Veldtman (South African National Botanical Institute (SANBI))	40. It would be useful to attach the executive summaries of the five specialist studies informing the SEA presented as appendices to the report. This would provide further background to the current threats and factors affecting ecosystem services in the CWDM.	An appendix report comprising the specialist inputs will be produced.
	41. The strategic actions under objective c) should include the identification of gaps in current available research to implementing sustainable agricultural practices, and identify how such research will be initiated and supported. It is unlikely that the current available research will address all issues mentioned.	This has been added as a strategic action under objective c) as suggested.

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	<p>42. With objective e) more specific mention should be made of the legislation related to the clearance of natural areas by expanding urbanisation and agriculture. Preservation of natural areas is of greater importance for maintaining biodiversity than managing invasive aliens, although the latter is also important. Furthermore, the internal capacity provided by one environmental officer for enforcing legislation for the entire CWDM Area will be insufficient.</p>	<p>The first strategic action listed under objective e) has been changed to include specific mention of legislation related to the preservation of natural areas.</p> <p>Concerning internal capacity: see changes made to the 2nd last strategic action under objective e).</p>
	<p>43. If in objective h) fine scale biodiversity information is not available how will IDP's and SDF's be constructed? For example in unaccessed areas, will a precautionary approach be followed (conserve present natural areas) or will development proceed without biodiversity information? This issue should be mentioned under the strategic actions.</p>	<p>In many instances proposed activities/development will require an Environmental Impact Assessment (EIA) in terms of the National Environmental Management Act (No. 107 of 2000). Part of this assessment will be an evaluation of the impact of the proposed development on the biodiversity of the area. However, it is still necessary to undertake fine-scale biodiversity mapping to guide the strategic planning that is undertaken in the IDP and SDF processes.</p>
	<p>44. As an added strategic action of objective l), it would be useful to supply farmers with recommended management guidelines in dealing with the various factors affecting ecosystem services.</p>	<p>This may be a specific project that can be undertaken and therefore will be carried forward for discussion at the SEMP stage of the project.</p>
	<p>45. Minor issues: CapeNature should be spelt correctly throughout, and acronyms should be defined on first mention (e.g. LED) since this is a document for public access.</p>	<p>These points have been checked throughout the document.</p>
	<p>46. In general the SEA lists most of the issues regarding the sustainable management of the Cape Winelands district's ecosystem services and identifies the generic</p>	<p>Thank you for the comment. Although general recommendations are included in the strategy report, more specific short-term priorities will indeed be articulated in the Strategic Environmental</p>

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	<p>strategies for dealing with the multitude of associated issues. However, this necessitates that detailed guidelines to sustainable ecosystem service management are dealt with explicitly in the SEMP. Also, because so many strategic actions are presented, their importance should be specified. This will help in cases where two actions are not compatible (e.g. conservation of natural area vs. construction of sustainable power source). Nonetheless, I see this SEA as being useful in providing a framework to deal with the management of ecosystem services, especially related to governance.</p>	<p>Management Plan (SEMP) that will be drafted in the next phase of the project.</p>

3. CONCLUSION

The comments received are gratefully acknowledged, as they assist us greatly in ensuring that a comprehensive strategy is produced. The next stage in the process is the compilation of the Strategic Environmental Management Plan (SEMP) that will contain a more specific set of priority projects to be undertaken in the short- to medium term, in order to move in the strategic direction set in this report. The current 2nd draft strategy will be advertised for public comment in conjunction with the draft SEM in May 2007.