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# **CHAPTER REVISION INFORMATION**

Date Signed	Rev.	Remarks	
April 2015	0	Sub-Revision 1: 18 July 2014 Included the comments received on 19 June 2014 from CoCT and CapeNature.	
		Sub-Revision 2: August 2014	
		Included comments received from formal review from Eskom, CapeNature and CoCT.	
		Sub-Revision 3: 20 April 2015	
		Included updates and comments received from the public review.	

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#### 3. STRATEGIC MANAGEMENT FRAMEWORK

The following strategic framework is aimed at providing the basis for the protection and operation of the Koeberg Nature Reserve (biodiversity stewardship site) over the next five years and has been prepared collaboratively through a process involving Eskom staff, the DEA provincial conservation authorities, and key stakeholders such as CapeNature and the CoCT.

The Strategic Management Framework describes the overall long-term goal for the operation and protection of the Koeberg Nature Reserve. The objectives and strategic outcomes that follow are intended to provide the basis for the management plan. The objectives provide a broad description of the goals for each key environmental aspect. The strategic outcomes, which flow from the objectives, set out what is needed to achieve the objectives, based on the management challenges, issues and opportunities described in Section 3.2.

#### 3.1 KEY ENVIRONMENTAL ASPECTS

The following key environmental aspects related to the management of the Nature Reserve have been identified and listed in Table 3-1 below:

Table 3-1 Identified key environmental aspects

<b>Key Environmental Aspects</b>	Aspect to be Managed	
Combining conservation and	Protection of bird breeding sites	
construction activities needed in support of the KNPS and	Effective waste management	
additional future power	Effective pollution control management	
stations	Effective stormwater management	
	New developments in the Developed Areas require to be screened to prevent or minimise environmental impacts.	
	Needed sustainable development in the Conservation Area subject to and EIA process and might require the update/amendment of the Management Plan.	
	Focus of ensuring that acceptable rehabilitation standards are employed when land or water resources are disturbed or impacted.	
Biodiversity Management	Fire Management	
	Invasive Alien Vegetation Management	
	Game Management	
	Ecosystem Management	
	Sustainable Harvesting (as required)	
	Erosion Prevention and Control	
	Baseline Data Collection	
Heritage Management	Management of heritage or cultural resources	
Education and Recreation	Educational development and recreational activities	
Security	Access Control	
	Game Enclosure	

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Operational Management of	Infrastructure Maintenance
the Koeberg Nature Reserve	Transmission Corridor Management
	Management System

# 3.2 SUMMARY OF MANAGEMENT ISSUES, CHALLENGES AND OPPORTUNITIES

Table 3-2 and Table 3-3 summarise the key management issues and challenges outlined in the descriptive sections above, which must be addressed through the management plan. The issues and challenges have been grouped under key performance areas, which flow through the strategic and operational management frameworks that follow.

Table 3-2 Management challenges, issues and opportunities

Key Environmental Aspects	Aspect to be Managed	Method Implemented
Combining conservation &	Protection of bird breeding sites	Incorporated in the Management Plan.
construction activities	Waste Management	Incorporated in the Management Plan. Also as and when required on a project specific basis.
	Pollution Control Management	Incorporated in the Management Plan.
	Stormwater Management	Incorporated in the Management Plan. Also as and when required on a project specific basis.
	New developments in the DZ require to be screened to prevent or minimise environmental impacts, and require an update of the SDP, and not an update of the Management Plan.	As and when required based on SDP and managed on a project specific basis.
	Needed sustainable development in the CZ subject to and EIA process and might require the update or amendment of the SDP and Management Plan.	As and when required based on SDP and managed on a project specific basis.
	Focus of ensuring acceptable rehabilitation standards when land is disturbed.	As and when required based on SDP and managed on a project specific basis.
Biodiversity Management	Fire Management	Incorporated in the Management Plan. Detail in document NSIP02659.
	Invasive Alien Vegetation Management	Incorporated in the Management Plan
	Game Management	Incorporated in the Management Plan

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	Ecosystem Management	Incorporated in the Management Plan
	Sustainable Harvesting	A plan will be drafted as and when required.
	Erosion Prevention and Control	Incorporated in the Management Plan
	Baseline Data Collection	Incorporated in the Management Plan
Heritage Management	Cultural Management of Resources	Resources of importance has been identified and mapped.
Education and Recreation	Education Development	Incorporated in the Management Plan
	Recreational Activities	Incorporated in the Management Plan
Security	Access Control	Incorporated in the Management Plan
	Game Enclosure	Incorporated in the Management Plan
Operational Management of the	Infrastructure Maintenance	Incorporated in the Management Plan
Koeberg Nature Reserve	Transmission Corridor Management	Incorporate in the Management Plan
	Management Systems	Incorporated in the Management Plan

## 3.3 OBJECTIVES AND STRATEGIC OUTCOMES

An objective has been identified for each of the Koeberg Nature Reserve Management Programmes (key performance areas), which follow from the management challenges, issues and opportunities, and relate to the important functions and activities necessary to protect, develop and manage it effectively. The objectives have then been translated into strategic outcomes, which form the basis for the management activities and targets set out in the operational management framework, described in Chapter 6. Table 3-3 sets out the key performance areas, the objective for each key performance area and the strategic outcomes, required to realise the objectives.

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Table 3-3 Objectives and strategic outcomes for Koeberg Nature Reserve

<b>Management Programme</b>	Management Objectives	Key Deliverables	
Combining Conservation and Construction/Operations Activities			
Combining Conservation and Construction/Operations Activities	<ul> <li>To manage and prevent the impact of current operations related to the KNPS and other facilities in the DZ and CZ</li> <li>To manage and prevent or minimise the impact of proposed new developments within the DZ on the DZ and CZ</li> <li>To manage and prevent or minimise the impact of proposed new and sustainable developments within the CZ on the DZ and CZ</li> <li>To rehabilitate any land within the CZ disturbed by construction, operational, or emergency activities to acceptable rehabilitation standards</li> </ul>	<ul> <li>Protection of bird breeding sites</li> <li>Waste Management</li> <li>Pollution Control Management</li> <li>Stormwater Management</li> <li>New Developments within the DZ</li> <li>New Developments within the CZ</li> <li>Rehabilitation of disturbed land</li> </ul>	
	Biodiversity Management		
Fire Management	<ul> <li>To ensure conservation of species and processes by maintaining and improving ecosystem functioning.</li> <li>To allow for natural fire processes to occur without impacting on safety and infrastructure.</li> <li>To ensure the implementation of effective conservation management interventions.</li> </ul>	<ul> <li>Reduce wildfires due to human negligence.</li> <li>Reduce/prevent the spread of fires.</li> <li>Maintain partnerships to improve fire management</li> <li>Control of Burning Programme to assist in maintaining the ecological integrity of the Nature Reserve</li> </ul>	
Invasive Vegetation Management	<ul> <li>To establish a long-term programme (including resources and funding) for the eradication of invasive vegetation species.</li> <li>To enhance biodiversity protection and conservation.</li> <li>To ensure conservation of species and processes by maintaining and improving ecosystem functioning.</li> </ul>	<ul> <li>Eradicate Alien and Invasive Species</li> <li>Implement Biological Control</li> <li>Prevent Further Introduction of Aliens</li> </ul>	
Game Management	<ul> <li>To ensure the effective management of game within the Nature Reserve.</li> <li>To ensure effective conservation of species and processes by maintaining and improving ecosystem functioning.</li> </ul>	<ul> <li>Monitoring – Game Numbers and Impact</li> <li>Monitoring – Health and parasite control</li> <li>Game Capture and Relocation (including injuries and rehabilitation)</li> <li>Management of Game Injuries/Mortalities</li> </ul>	

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		<ul><li>Water Supply</li><li>Poaching Control</li><li>Removal of feral and domestic animals</li></ul>
Ecosystem Management	<ul> <li>To ensure the effective conservation of sensitive ecosystems and aquifers within the Nature Reserve.</li> <li>To maintain the natural processes within each of these ecosystems and provide suitable habits for threatened and endangered species characteristic to each ecosystem.</li> </ul>	<ul> <li>Maintain the ecological integrity of the sensitive vegetation types and its dune systems</li> <li>Manage wetlands according to recognised best practice knowledge and guidelines</li> <li>Manage seepage and CoCT effluent dams</li> </ul>
Sustainable Harvesting (as required)	<ul> <li>To ensure the sustainable use of wild fynbos resources.</li> <li>To ensure the conservation of biodiversity where harvesting operations occur.</li> <li>To monitor the impact of harvesting on selected fynbos species.</li> </ul>	Minimise Harvesting Impact
Erosion prevention and control	<ul> <li>To ensure implementation of effective conservation management interventions during development.</li> <li>To prevent the degradation of soil and ensure soil conservation.</li> <li>To prevent the resultant loss of vegetation and degradation of wetland features.</li> </ul>	<ul> <li>Prevent and mitigate soil erosion during any development in the CZ and DZ</li> <li>Monitoring and maintenance of access routes, hiking and MTB trails (CZ)</li> <li>Monitor and prevent the degradation due to soil erosion in the CZ</li> </ul>
Baseline data collection	To collect biodiversity knowledge.	<ul> <li>Record Keeping</li> <li>Allow the CoCT, CapeNature and any other research initiative to conduct specific conservation monitoring programmes within the CZ</li> </ul>
	Heritage Management	
Heritage Management	To conserve any archaeological and/or paleontological artefacts and manage to maximise benefits to all.	<ul> <li>Conserve the two beacons and dam house</li> <li>Manage the discovery of any archaeological and/or paleontological artefacts</li> </ul>

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MANAGEMENT PLAN FOR THE KOEBERG NATURE RESERVE Chapter

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Education and Recreation			
Educational Development and Recreational Activities	To promote environmental education and biodiversity research.     To promote the use of Koeberg's recreational facilities, i.e. mountain bike and hiking trails.	<ul> <li>Promote nuclear and environmental education</li> <li>Support research initiatives</li> <li>Maintain recreational facilities in support of activities in the Nature Reserve</li> <li>Management of annual events approved by the KMA</li> </ul>	
	Security		
Access Control and Game Enclosure	To ensure the buffer area around the KNPS with access control determined by the KNPS Security programme.     To ensure maintenance of game/boundary fences.	<ul> <li>Security (Access Control)</li> <li>Fence Management (Boundary/Game fences)</li> <li>Patrols</li> </ul>	
	Operational Management of the Koeberg Nature	e Reserve	
Infrastructure Maintenance	Infrastructure must be maintained to avoid any damage to the environment and ensure the safety of staff and visitors to the site.	<ul> <li>Road Maintenance</li> <li>Maintain infrastructure within the CZ (typically wooden)</li> </ul>	
Transmission Corridor Management	To manage and maintain vegetation along transmission corridor to avoid fire damage to the transmission network.	Minimise fire hazard to the transmission network	
Management System	Effective management and operation of the nature reserve.	<ul> <li>Legal Compliance</li> <li>Monitoring and reporting</li> <li>Management review of the effectiveness of the Management Plan</li> </ul>	