



Management Plan for the Koeberg Nature Reserve

Western Cape

South Africa



Prepared by: Eskom Holdings SOC Limited

Citation

Koeberg Nature Reserve Management Plan. Revision 1, (November 2015), Koeberg Management Authority.

AUTHORISATION

This **Management Plan** for the **Koeberg Nature Reserve** was drafted and recommended by the **Koeberg Nature Reserve Management Authority**.

Supported by:

CapeNature Conservation Services

Recommended and adopted by:

Name and Title	Signature and Date
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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.
November 2015	1	Revision 1: 23 November 2015 Definitions updated in Chapter 0, as requested by a letter from CapeNature on 10 November 2015.

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CONFIGURATION CONTROL

The Koeberg Nature Reserve Management Plan has been written in a manner that each chapter stands individually. As such each chapter can be reviewed separately, preventing the need to review the entire document when change is required. The following table maintains the Configuration Control of the various chapters in the Management Plan.

CHAPTER	REV. NO.	DATE SUBMITTED TO CAPENATURE FOR MEC APPROVAL	COMMENTS
Chapter 0	Rev. 1	November 2015	Rev 1 to amend definitions as requested by CapeNature on 10 November 2015
Chapter 1	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
Chapter 2	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
Chapter 3	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
Chapter 4	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
Chapter 5	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
Chapter 6	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
Chapter 7	Rev. 0	September 2014	Formalisation of the existing Management Plan to meet NEM: Protected Areas Act (2003) requirements
APPENDIX	REV. NO.	DATE SUBMITTED TO CAPENATURE FOR MEC APPROVAL	COMMENTS
Appendix A	Copy	September 2014	
Appendix B	Rev. 1	November 2015	Rev 1: Updated to align with new definitions in Chapter 0
Appendix C	Rev. 0	September 2014	

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ABBREVIATIONS

Abbreviation	Description
ACP	Access Control Point
APO	Annual Plan of Operation
CARA	Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)
CoCT	City of Cape Town
CZ	Conservation Zone
DEADP	Department of Environmental Affairs and Development Planning (Western Cape)
DWS	Department of Water and Sanitation
DEA	Department Environmental Affairs
DZ	Developed Zone
EA	Environmental Authorisation
ECA	Environment Conservation Act, 1989 (Act No. 73 of 1989)
EIA	Environmental Impact Assessment
EIS	Ecological Importance and Sensitivity
ELM	Eskom Land Management
EMP	Environmental Management Programme
EMS	Environmental Management System
EO	Environmental Officer
ESL	Environmental Survey Laboratory
ERE	Eskom Real Estate
FFD	Fitness for Duty
FH	Fire Hydrant
FPA	Fire Protection Association
GIS	Geographical Information System
HWC	Heritage Western Cape
IAPs	Interested and Affected Parties
ISO	International Organisation for Standardisation
KCWIB	Koeberg Cooling Water Intake Basin
KCWOB	Koeberg Cooling Water Outtake Basin
KIPTS	Koeberg Insulator Pollution Testing Station
KMA	Koeberg Management Authority
KNPS	Koeberg Nuclear Power Station
KOU	Koeberg Operating Unit
KTC	Koeberg Training Centre
kV	Kilovolt
LUPO	Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985)

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Abbreviation	Description
LLW	Low Level Waste
NEM	National Environmental Management
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended
NHRA	National Heritage Resources Act (Act No. 25 of 1999)
NNR	National Nuclear Regulator
NPAES	National Protected Areas Expansions Strategy
NWA	National Water Act (Act No. 36 of 1998)
PAZ	Protective Action Zone
PEE	Portable Emergency Equipment
PES	Present Ecological Status
SAHRA	South African Heritage Resources Agency
SANBI	South African National Botanical Institute
SCC	Species of Conservation Concern
SDP	Site Development Plan
Sw	Seasonal Wetlands
TISF	Transient Interim Storage Facility
UPZ	Urgent Protective Action Zone
VC	Koeberg Visitors Centre

DEFINITIONS

Activity means the policies, programmes, processes, plans and projects.

Alien Species mean species or genotypes, which are not indigenous to the Koeberg Nature Reserve and the surrounding area including hybrids and genetically altered organisms.

Aquifer means a geological formation which has structures or textures that hold water or permit appreciable water movement through them.

Biodiversity: the variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and also includes diversity within species, between species, and of ecosystems (as per NEM:BA (Act No. 10 of 2004)).

Borehole includes a well, excavation or any artificially constructed or improved underground cavity which can be used for the purpose of

- (a) intercepting, collecting or storing water in or removing water from an aquifer;
- (b) observing and collecting data and information on water in an aquifer; or
- (c) recharging an aquifer.

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Buffer zone means

- (a) the area surrounding a protected area that has restrictions placed on its use or where collaborative projects and programmes are undertaken to afford additional protection to the Nature Reserve; or
- (b) the area surrounding a developed area that has restrictions in place on its use or where collaborative programmes are undertaken to afford additional protection to facilities and infrastructure associated with the operation of the Koeberg Nuclear Power Station, such as firebreaks, security fencing, etc.

CapeNature is the Nature Conservation Service as established in terms of the Western Cape Nature Conservation Board Act, 15 of 1998.

Continual Improvement: Recurring process of enhancing the EMP in order to achieve improvements in the overall environmental performance consistent with the organisation's environmental policy.

Certification: Procedure by which a third party gives written assurance that a product process or service conforms to specified requirements.

Conservation Zone means land set aside for protection in the Koeberg Nature Reserve Management Plan as defined in Chapter 4 and managed within its set of management objectives.

Constitution means the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996).

Corrective Action means an action to eliminate the cause of a defected nonconformity and prevent further possible occurrence.

Developed Zone means all areas zoned for development, developed areas and specified buffer zones, as described in Chapter 4 of the Koeberg Nature Reserve Management Plan and managed within its set of management objectives.

Development means any physical intervention, excavation or action, other than that caused by natural forces, which may result in a change in the, appearance or physical nature of a site in a nature reserve or influence its stability and future well-being, including -

- (a) the construction, alteration, demolition, removal or change of use of a site or a structure on the site;
- (b) the carrying out of any works on, over or under the site;
- (c) the construction or putting up for display of signs or notice boards;
- (d) any change to the natural or existing condition or topography of land; and
- (e) any removal, physical disturbance, clearing or destruction of trees or vegetation or the removal of topsoil.

Ecological integrity means the sum of the biological, physical and chemical components of an ecosystem and its products, functions and attributes (as per NEM:PAA, 2003).

Ecosystem means the dynamic complex of animals, plant and micro-organism communities and their non-living environment interacting as a functional unit (as per NEM:PAA, 2003).

Environment means the surroundings within which humans exist and that are made up of –

- (c) the land, water and atmosphere of the earth;
- (d) micro-organisms, plant and animal life;
- (e) any part or combination of (i) and (ii) and the interrelationship among and between; and
- (f) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing (as per NEMA, 1998).

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Environmental aspects are features or characteristic of an activity, product, or service that affects or can affect the environment.

Environmental degradation means the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems and the loss of species or undesirable reduction of species population numbers from a specific area from an environmental health perspective

Eskom as defined in the Eskom Conversion Act, 2001, means the juristic person referred to in Section 2 of the Act and upon conversion means Eskom Holdings SOC Ltd and is made up of all divisions.

Heritage resources mean any place of object of cultural significance.

Indigenous species: in relation to a specific protected area, means a species that occurs, or has historically occurred, naturally in a free state of nature within that specific protected area, but excludes a species introduced in that protected area as a result of human activity (as per the NEM:PAA, 2003).

Interested and Affected Parties / Stakeholders means any person, group of persons, organisation interested or any organ of state that may have jurisdiction over any aspect of the operation or activity.

Invasive Species means any species whose establishment and spread outside of its natural distribution range;

- (a) Threaten ecosystems, habitats or other species or have a demonstrable potential to threaten ecosystems, habitats or other species.
- (b) May result in economic and environmental harm or harm to human health. (As per the NEM:PAA, 2003).

Koeberg Management Authority: In relation to the Koeberg Nature Reserve, means the organ of state, Eskom Holdings SOC Ltd, in which the authority to manage the Koeberg Nature Reserve is vested (as per the NEM:PAA, 2003).

Management: In relation to a protected area, includes control, protection, conservation, maintenance and rehabilitation of the protected area with due regard to the use and extraction of biological resources, community-based practices and benefit sharing activities in the area in a manner consistent with the Biodiversity Act (as per the NEM:PAA, 2003).

Management Authority: In relation to a protected area, means the organ of state or other institution or person in which the authority to manage the protected area is vested (as per the NEM:PAA,2003).

Monitoring means the collection and analysis of repeated observations or measurements to evaluate change in status, distribution or integrity in order to track the impacts of directed management implemented to achieve a stated management objective.

Nature Conservation: The conservation of naturally-occurring ecological systems and the sustainable utilisation of indigenous plants and animals and the promotion and maintenance of biological diversity within those systems, with due regard to the need to preserve objects of geological, archaeological, historical, ethnological, educational, oceanographic or scientific interest (as per the Western Cape Nature Conservation Board Act, [Act No.15 of 1998]).

Neighbouring Community means the communities and people permanently living in the local municipal area bordering the Nature Reserve.

Pollution means the direct or indirect alteration of the physical, chemical or biological” properties of a water resource so as to make it

- (f) less fit for any beneficial purpose for which it may reasonably be expected to be used;
- (g) harmful or potentially harmful to the welfare, health and safety of human beings; to any aquatic or non-aquatic organisms; to the resource quality: to property.

Protected Areas means any protected areas referred to in section 9 of the NEM:PAA (Act No. 57 of 2003).

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Specific Environmental Management Act means -

- (a) the Environment Conservation Act, 1989 (Act No. 73 of 1989);
- (b) the National Water Act, 1998 (Act No. 36 of 1998);
- (c) the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003);
- (d) the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004); or
- (e) the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004),
- (f) the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008);
- (g) the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008);
- (h) the World Heritage Convention Act, 1999 (Act No. 49 of 1999);

and includes any regulation or other subordinate legislation made in terms of any of those Acts.

Sustainable development means the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations.

Water Abstraction and Effluent Disposal Agreement means the agreement between Eskom Holdings SOC Ltd and the City of Cape Town given by the Department of Water Affairs in March 1973 in terms of section 21 of the Water Act (Act No. 54 of 1956) to discharge of purified effluent from the Atlantis sewage purification works-

- (a) by discharge to sea via a system of storm water collecting ponds and pipelines; and
- (b) by irrigation in admixture with storm water from the storm water ponds, of sand dune to stabilise the dunes;

Water resource includes a water course, surface water, estuary or aquifer.

Waste means -

- (a) any substance, material or object, that is unwanted, rejected, abandoned, discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act; or
- (b) any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette,

but any waste or portion of waste, referred to in paragraphs (a) and (b),

- (i) once an application for its re-use, recycling or recovery has been approved or, after such approval, once it is, or has been re-used, recycled or recovered;
- (ii) where approval is not required, once a waste is, or has been re-used, recycled or recovered;
- (iii) where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a particular process from the definition of waste; or
- (iv) where the Minister has, in the prescribed manner, excluded any waste stream or a portion of a waste stream from the definition of waste.

RAMSAR – The Convention on Wetlands (Ramsar, Iran, 1971) -- called the "Ramsar Convention" -- is an intergovernmental treaty that embodies the commitments of its member countries to maintain the ecological

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character of their Wetlands of International Importance and to plan for the "wise use", or sustainable use, of all of the wetlands in their territories.

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