	<p style="text-align: center;">Plan</p>	<p style="text-align: center;">Medupi Power Station Project</p>
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Title: **Medupi Land and Stockpile Management Plan**

Document Identifier: **200-79130**

Alternative Reference Number: **N/A**

Area of Applicability: **Medupi Power Station Construction Project**

Functional Area: **Environment**


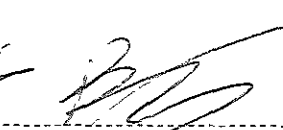
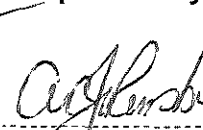
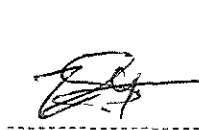
Revision: **03**

Total Pages: **20**

Self-Assessment: **3 Yearly**

Disclosure Classification: **Controlled Disclosure**

Current Change Note: **CN100185**

Compiled by	QA, Interface & Governance Review	Functional Responsibility	Authorized by
			
E Marell Environmental Manager	B Mgidlana Quality Manager	B Janse Van Rensburg Senior Construction Manager	Z Shange Dinkane General Manager Group Capital-Medupi(Acting)
Date: <u>11/11/2019</u>	Date: <u>15/11/2019</u>	Date: <u>2019/11/15</u>	Date: <u>2019/12/11</u>

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2.2.1 Normative

- [1] National Environmental Management Act (Act no. 107 of 1998)
- [2] ISO 14001 Environmental Management Systems

2.2.2 Informative

- [3] 200 5919 Project Execution Plan
- [4] 200 1679 Project Quality Plan
- [5] 200 5665 Development and change of Medupi QMS Documents
- [6] 2001680 Document and Control Management Procedure
- [7] 200 163680 Unit Construction Manual
- [8] Medupi Power Station Environmental Impact Assessment (EIA)
- [9] 12/12/20/695 Record of Decision for the Medupi Project
- [10] 200 73979 Medupi Environmental Policy Statement
- [11] 200 73795 Procedure for the Identification and Assessment of Aspect and Impacts
- [12] 200-156540 Stockpile Management Register
- [13] 200-52712 Rubble Disposal Permit Form

2.3 Definitions

Term	Explanation
Contractor	An employer who performs construction work and includes principal contractors. Contracted companies are specifically viewed as employers in their own right, as per the OHS Act
Environment	The Environment means the surroundings within which humans exist and that are made up of: <ul style="list-style-type: none"> a) The land, water and atmosphere of the earth, b) Micro-organisms and plant and animal life; c) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being
Alien and invasive species	Non-indigenous species that threaten ecosystems, habitats or other species or have demonstrable potential to threaten ecosystems, habitats or other species. They may also result in economic, environmental harm, and/or human health.
Stockpile	Material kept for future use

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Abbreviation	Explanation
SAHRA	South African Heritage Resource Agency
SANS	South African National Standards
SP	Stockpile

2.5 Roles and Responsibilities

a) Responsible

Those who do the work to achieve the task. There is at least one role with a participation type of responsible, although others can be delegated to assist in the work required.

b) Accountable (also approver or final approving authority)

The one ultimately answerable for the correct and thorough completion of the deliverables or task, and the one who delegates the work to those responsible. In other words, an accountable must sign off (approve) work that responsible provides. There **must** be only one accountable specified for each task or deliverable.

c) Consulted (sometimes counsel)

Those whose opinions are sought, typically subject matter experts; and with whom there is two-way communication.

d) Informed

Those who are kept up-to-date on progress, often only on completion of the task or deliverable; and with whom there is just one-way communication.

Table 1: RACI Matrix

Process Step	TM Construction manager	TM Unit Managers	TM Contract Mangers	TM Environmental Manager	Environmental Practitioners	PCs Environmental Practitioners	ECO	Site Services
Ensures that the requirements of this land management plan are implemented	I,C	I	R,I	R,A	R,C,I	R,I	CI	A
Ensure no stockpile is developed without approval	IC	I	RI	RA	RI	RI	CI	R
Ensure no double handling of topsoil	IC	I	R	A	R	R	I	R

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3.3.3 Alien and Invasive Plant

The project together with contractors shall take steps to eradicate the declared weeds and alien vegetation using methods prescribed in the regulations, namely;

- a) Uprooting, destroying by using mechanical method where feasible, and
- b) Application of selective herbicides,
- c) Any other method which will ensure that the seeds are not spread or blown on to other property.

3.4 Fauna

No disturbing, injuring or killing of any fauna (including snakes) onsite. Where possible game on the property shall be removed and/or protected to avoid injuries, disturbance or poaching. The removal of the animals, if so required, shall be done by a registered game capturer in consultation with the Environmental Manager & ECO. The necessary permits shall be sought from the Authorities in the Province. Method statement for the activities and the Risk Assessment shall be approved prior to the commencement of the capture and relocation.

No feeding of wildlife except where the instruction for artificial feed and watering is issued.

No domestic animals are to be brought onto the site

The construction site will be kept clean and tidy and free from rubbish which would attract animal pest species.

Eskom will advise all employees, contractors and subcontractors of the penalties associated with the needless destruction of wildlife, as set out in the Animals Protection Act (Act 17 of 1962) Sec 2 (fine R2 000 and/or 12 months imprisonment).

Where possible, fencing shall allow for free movement of small and medium size mammals through fences

In the event that a snake or any other problem animal (dead or alive) is encountered, a professional animal rescuer appointed/recommended by the project shall be called in to remove the animal

TM Environmental Department must continue to investigate alternative options of managing animals such as monkeys, baboons, feral cats, warthogs and antelopes.

Awareness on management of fauna onsite must be communicated with employees" onsite using various medium such as toolbox talks, posters and induction

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- Plastics
- Wood
- Steel/Scrap Metal
- Packaging material

As part of the plan the following actions are required as a minimum.

- Materials must be disposed at areas indicated as per Stockpile Management Register (200-156540) Also refer to site stockpiles layout plan attached Note. The Stockpile Management Register is a dynamic document that will be updated as and when required. Any changes in that regard will be communicated to all contractors.
- All contractors disposing material at designated stockpile area must submit a signed copy of a Rubble Disposal Permit (200-52712) to the access controllers at stockpile areas
- The contractor must segregate their rubble prior to transporting and disposing it at designated stockpile area. Any rubble, soil, etc mixed with other waste objects such as plastics, wood, steel, domestic waste etc, will not be allowed at the designated stockpile areas.
- No wet concrete will be allowed at stockpile areas. Wet concrete must be allowed to dry at the contractor's concrete drying area The drying area must have an impermeable surface Once concrete is dry, it can be disposed at designated stockpile areas
- The stockpile area spotters will prior allowing disposal of any material by contractors, inspect to check whether material complies with requirements stipulated in this plan. If material is found not to comply, the truck will not be allowed to dispose at designated stockpile areas until it complies with the requirements.
- Should there be any mixed materials discovered by spotter during and after disposal by the contractor, the spotter will instruct the contractor to either reload mixed material or send a team to segregate already disposed material
- TM Environmental team, ECO and the spotters will be monitoring the site to ensure illegal dumping of materials does not occur. If the contractor is found illegally dumping on none designated areas, the issue will be dealt with through procedure: Handling of HSE non-conformities and preventative and corrective action (PPZ 200-38426) and contractual means
- The stockpiling areas will operate at normal working hours. Any after-hours arrangements can be made via the Contracts Manager and Construction Site Support Service. TM Environmental Department must also be informed
- TM will ensure that the final use of all stockpiled materials is decided and implemented. Such include crushing of materials, use materials for backfill onsite, use of materials for the rehabilitation of sites and landscaping etc. In some instances the Contracts Manager in consultation with TM Environmental Department will communicate with the relevant contractor about managing the final use of the material.

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3.7.1 Spoil Material

The spoil material shall be stockpiled at designated stockpile areas. Spoil stockpile area will be located away from the storm water drain lines and any water bodies that may occur on site. Spoil stockpile may also be utilised outside the site as per the ECO and TM Environmental Department approvals (e.g. Matimba ash dump and the Exxaro rock dump for rehabilitation purposes). The spoil material shall be compacted to limit erosion. The spoil stockpile should be stored in such a way that it allows free drainage to ensure that there is no ponding of water.

3.7.2 Topsoil removal and stockpiling

Removed topsoil shall be stockpiled at a height not exceeding 2m or as agreed upon by the ECO. Topsoil is to be handled twice only once to strip and stockpile and secondly to replace, level, shape and scarify. Topsoil shall be used for rehabilitation where feasible. Topsoil shall be stockpiled in such a way that erosion is minimal or avoided.

3.7.3 Excavation, backfilling and trenching

No excavation should take place unless it is required and approved as per method statement (and excavations permit where applicable). The method statement shall detail the process for excavation. Excavated material should be stored next to the excavation to be utilised for back filling and the excess material be taken to the applicable stockpile area.

3.7.4 Erosion Management

Where possible, areas susceptible to erosion where construction is complete shall be protected by implementing suitable erosion control methods (such as mulching/tree planting/gabion mesh). Road construction and maintenance shall be in such a way that it prevents or minimises erosion of road sites. Other areas susceptible to erosion should be protected by installing temporary/permanent drainage works. Any erosion channels developed during construction period must be backfilled and compacted to proper condition. Storm water drainage channels should be constructed in such a way that the sides are stable and cannot be eroded away. The TM Environmental Department shall conduct and/or encourage the contractor to do regular erosion surveys with particular reference to cleared areas, earthwork structures, access roads, fire breaks, etc. During construction phase erosion is expected in certain areas still not finished. These areas will be treated on a case by case basis depending on the severity and risk to the environment or existing infrastructure.

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- a) Assessment Records;
- b) Registers of captured data

The revision status of Medupi Project Quality Record templates is defined in the Medupi QMS Index, 200-47329, maintained by Medupi Quality Department.

Retention and storage of records generated as a result of this document shall follow the process defined in the Procedure 200-1680 "Document and Control Management Procedure"

5. Process for Monitoring

5.1 Key Performance Areas and Indicators

The following Key Performance Areas / Indicators (KPA's / KPI's) shall be measured, analysed and reported. The Process Owner shall be accountable, and assign the responsibility at the frequency as indicated below, documented as part of the QMS measurement, analysis and improvement initiative.

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Participants and results of the “self-check” review shall be documented by the Process Owner in the “Self-Assessment Checklist” (*QMS Template No. QMS PTZ 200 - 75592*) included as an Appendix to this procedure which shall be issued to medupiq@eskom.co.za by the Process Owner once completed.

Process Owner shall proceed with any revision requirements in line with Medupi Procedures PPZ 200 5665 “Development and Change of Medupi QMS Documents” and PPZ 200 1680 “Document and Record Management”

5.2.2 Revision Period

All QMS documents shall undergo a 6-monthly self-assessment.

5.3 Training Requirements

No project specific training required to implement the process documented in this document beyond normal job function.

6. Acceptance

This document has been seen and accepted by:

Name	Designation
Emile Marell	Environmental Manager
Brenda Mgidlana	Quality Manager
Barry Janse Van Rensburg	Senior Construction Manager
Zandi Shange	Acting General Manager Group Capital -Medupi

7. Revisions

Date	Rev.	Compiler	Remarks
May 2019	4	Mathews Sebonego	Merge with Stockpile plan
April 2019	3	Hanelle Burger	Transferred to new template
January 2016	2	Lebogang Ramono	Annual Review
May 2013	1	Louis Badenhorst	First Issue / Approved

8. Development Team

The following people were involved in the development of this document:

- Mumsy Boshomane
- Matthews Sebonego

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Appendix A: Process Self-Assessment Checklist

Discipline: Environmental		Applicable Document No : PPZ 200 - 79130			Self Assessment Date / /	
Item No	Ref Section	Self-Assessment Question	Compliant			Comment
			Yes	Part	No	
1	3.4	Has a Management plan/operational control been developed for the management of flora on site?				
2	3.5	Has a Management plan/operational control been developed for the management of fauna on site?				
3	3.6	Is all applicable Environmental permitting available?				
4	3.7	Has a Management plan/operational control been developed for the management of soil or stockpile on site?				
5	3.8	Has a Management plan/operational control been developed for the management of heritage on site?				
6	3.9	Is access requested for environmental restricted areas				
7	3.10	Has a Management plan/operational control been developed for the management of rehabilitation on site?				
Comments:						
Self-Assessment by. Name:		Position.			Revision Required? (Yes / No)	Planned Revision Date:
Attendees:						

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