

Client C.J.N.S MELKERY TRUST

Project Hamba Kahle Cemetery – Environmental Management

Programme (EMPr)

Date September 2019





C.J.N.S MELKERY TRUST

Hamba Kahle Cemetery – Environmental Management Programme (EMPr)

EIA Ref No. To be confirmed upon submission of Application to the Competent Authority

> Plot 24 Haakdoornboom AH Soutpan Road (M35) Pretoria North

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DEFINITIONS

Alternatives

In relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the-

- a) property on which or location where the activity is proposed to be undertaken:
- b) type of activity to be undertaken;
- c) design or layout of the activity;
- d) technology to be used in the activity; or
- e) operational aspects of the activity;

and includes the option of not implementing the activity.

Application

An application for an Environmental Authorisation (EA).

Basic Assessment Report

A report contemplated in regulation 21 of the EIA Regulations, 2014.

Buffer Area

Unless specifically defined, means an area extending 10 kilometres from the proclaimed boundary of a world heritage site or national park and 5 kilometres from the proclaimed boundary of a nature reserve, respectively, or that defined as such for a biosphere.

Cumulative Impact

In relation to an activity, means the past, current and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities.

Dangerous Good

Goods containing any of the substances as contemplated in South African National Standard No. 10234, supplement 2008 1.00: designated "List of classification and labelling of chemicals in accordance with the Globally Harmonized Systems (GHS)" published by Standards South Africa, and where the presence of such goods, regardless of quantity, in a blend or mixture, causes such blend or mixture to have one or more of the characteristics listed in the Hazard Statements in section 4.2.3, namely physical hazards, health hazards or environmental hazards.

Development

The building, erection, construction or establishment of a facility, structure or infrastructure, including associated earthworks or borrow pits, that is necessary for the undertaking of a listed or specified activity, including any associated post development monitoring, but excludes any modification, alteration or expansion of such a facility, structure or infrastructure, including associated earthworks or borrow pits, and excluding the redevelopment of the same facility in the same location, with the same capacity and footprint.

Development footprint

Any evidence of physical alteration as a result of the undertaking of any activity.

EAP

An environmental assessment practitioner as defined in section 1 of NEMA.



EMPr

An environmental management programme contemplated in regulations 19 and 23 of the EIA Regulations, 2014.

Environment

The surroundings (biophysical, social and economic) within which humans exist and that are made up of:

- the land, water and atmosphere of the earth;
- (ii) micro-organisms, plant and animal life;
- (iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
- (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and wellbeing.

Environmental Impact Assessment

A systematic process of identifying, assessing and reporting environmental impacts associated with an activity and includes Basic Assessment and Scoping and Environmental Impact Reporting.

Independent

In relation to an EAP, a specialist or the person responsible for the preparation of an environmental audit report, means-

- a) that such EAP, specialist or person has no business, financial, personal or other interest in the activity or application in respect of which that EAP, specialist or person is appointed in terms of the EIA Regulations; or
- b) that there are no circumstances that may compromise the objectivity of that EAP, specialist or person in performing such work;

excluding -

- (i) normal remuneration for a specialist permanently employed by the EAP; or
- (ii) fair remuneration for work performed in connection with that activity, application or environmental audit.

Indigenous Vegetation

Vegetation consisting of indigenous plant species occurring naturally in an area, regardless of the level of alien infestation and where the topsoil has not been lawfully disturbed during the preceding ten years.

Industrial Complex

An area used or zoned for industrial purposes, including bulk storage, manufacturing, processing or packaging purposes.

Mitigation

To anticipate and prevent negative impacts and risks, then to minimise them, rehabilitate or repair impacts to the extent feasible.

Phased Activities

An activity that is developed in phases over time on the same or adjacent properties to create a single or linked entity.

Registered Interested and Affected Party

In relation to an application, means an Interested and Affected Party whose name is recorded in the register opened for that application in terms of regulation 42 of the EIA Regulations, 2014.

Significant Impact

An impact that may have a notable effect on one or more aspects of the environment or may result in non-compliance with accepted environmental quality standards, thresholds or targets and is determined through rating the positive and



negative effects of an impact on the environment based on criteria such as duration, magnitude, intensity and probability of occurrence.

Specialist

A person that is generally recognised within the scientific community as having the capability of undertaking, in conformance with generally recognised scientific principles, specialist studies or preparing specialist reports, including due diligence studies and socio-economic studies.

Systematic Biodiversity Plan

A plan that identifies important areas for biodiversity conservation, taking into account biodiversity patterns (i.e. the principle of representation) and the ecological and evolutionary processes that sustain them (i.e. the principle of persistence). A systematic biodiversity plan must set quantitative targets/thresholds for aquatic and terrestrial biodiversity features in order to conserve a representative sample of biodiversity pattern and ecological processes.

Watercourse

- (a) a river or spring:
- (b) a natural channel in which water flows regularly or intermittently;
- (c) a wetland, pan, lake or dam into which, or from which, water flows; and

any collection of water which the Minister may, by notice in the Gazette, declare to be a watercourse as defined in the National Water Act, 1998 (Act No. 36 of 1998); and

a reference to a watercourse includes, where relevant, its bed and banks.

Wetland

Land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

ABBREVIATIONS

BAR **Basic Assessment Report**

BID **Background Information Document** CRR Comments and Response Report DWS Department of Water and Sanitation

EA **Environmental Authorisation**

EAP **Environmental Assessment Practitioner** EIA **Environmental Impact Assessment** EMF **Environmental Management Framework EMPr Environmental Management Programme**

GN **Government Notice**

I&AP Interested and Affected Party

IWULA Integrated Water Use Licence Application

MDARDLEA -Mpumalanga Department of Agriculture, Rural Development, Land and Environmental

Affairs

NEMA National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended NEM:WA National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008), as amended

NHRA National Heritage Resources Act, 1999 (Act No. 25 of 1999), as amended

R Regulation

SAHRA South African Heritage Resources Agency



1. PROJECT TITLE

Hamba Kahle Cemetery

2. APPLICANT DETAILS

| Applicant Name | C.J.N.S Melkery Trust |
|-------------------|------------------------------|
| Contact Person | Mr Johan Wasserman |
| Postal Address | PO Box 189, Standerton, 2430 |
| Telephone Number | 044 871 0227 |
| Cell phone Number | 083 309 7373 |
| Fax Number | 044 871 0227 |
| Email Address | wassermanjg321@telkomsa.net |

3. ENVIRONMENTAL ASSESSMENT PRACTITIONER DETAILS

| Environmental Assessment Practitioner Company | Labesh (Pty) Ltd |
|---|--|
| Contact Person | Lourens de Villiers |
| Postal Address | Postnet Box 469, Private Bag X504, Sinoville, 0129 |
| Telephone Number | 082 789 6525 |
| Fax Number | |
| Email Address | info@labesh.co.za |
| Qualifications | B.Sc Earth Science (North West University) |
| | Hons B.Sc Geography and Environmental Studies (North |
| | West University) |
| | M.Sc Water Resource Management (University of |
| | Pretoria) |
| Relevant experience | 17 years' experience conducting Environmental Impact |
| | Assessment processes |

The EAP's full Curriculum Vitae is attached to the Basic Assessment Report under Appendix E.

4. LOCATION OF THE PROPOSED DEVELOPMENT AND ACTIVITIES

The property for the proposed development and its associated activities is as follows:

Table 1: Property details

| Property/Land Parcel | 21 digit Surveyor General Code | Property size |
|--|--------------------------------|---------------|
| Remaining Extent of Portion 1 of the farm Vlakfontein 338 IS | T0IS00000000033800001 | 312.9430 Ha |
| Remaining Extent of Portion 6 of the farm Vlakfontein 338 IS | T0IS00000000033800006 | 165.7819 Ha |

Kindly take note that the proposed development will only take place on a portion of each of the above mentioned properties and not the entire farm portions.



The project location is 3km north of Standerton, in the Lekwa Local Municipality, Gert Sibande District Municipality, Mpumalanga Province. The GPS coordinates for the project site are as follows:

26°53'23.99"S; 29°13'43.44"E

A locality map, provided on the next page, shows the location of the project property, at an appropriate scale.



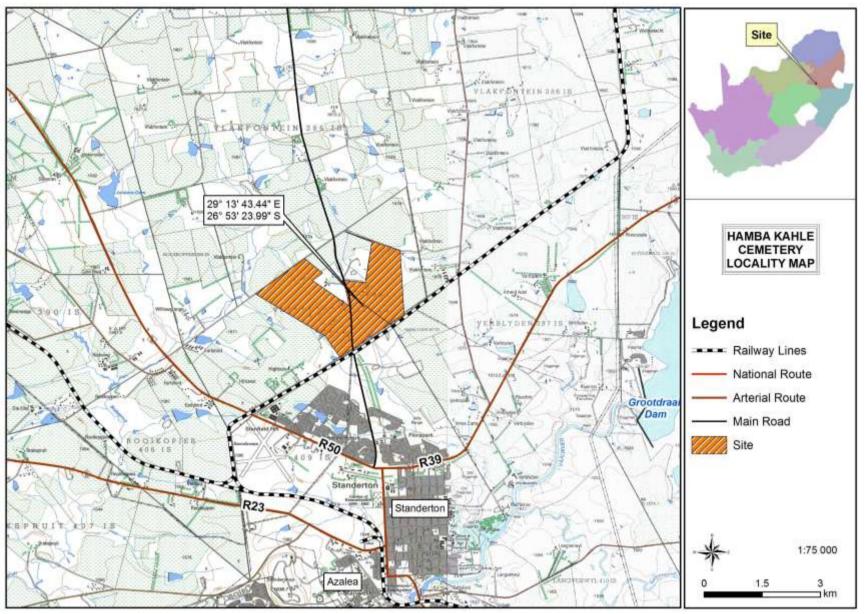


Figure 1: Site locality map



The following photographs give an indication of the current status of the project property.



Figure 2: Site Photographs



5. DESCRIPTION OF THE ASPECTS OF THE ACTIVITY THAT ARE COVERED BY EMPr AS IDENTIFIED BY THE THE **PROJECT DESCRIPTION**

5.1 Description of the activities to be undertaken

The owner of the properties applicable to the application identified a need for cemeteries within the Standerton area and saw the development potential in utilizing a portion of his property for a privately managed cemetery fulfilling in a need that the Local Authority has trouble fulfilling in, as also indicated in the Lekwa Local Municipality Integrated Development Plans (IDPs) and Spatial Development Framework (SDF).

Existing buildings on site

Currently the only existing buildings on the site are some old farm dwellings.

Proposed project

The proposed project will entail the following:

- The establishment of a cemetery and chapel for memorial services;
- The cemetery will comprise of 31 737 graves and a memorial garden;
- The cemetery will be divided into five sections:
 - Entry level graves;
 - Tree graves;
 - Family plots;
 - Up-market graves; and
 - o The memorial garden.
- Parking areas;
- A number of toilet blocks;
- A sewage package plant; and
- An internal road network.

The two project properties are 478.7249 Ha in total. The total area of land that will be developed (should the development be approved) is 18 Ha.

5.1.1 Roads and Storm Water

Access

Access to the cemetery is proposed to be on the northern corner of the site from the R546 which runs from Evander through Standerton towards Vrede. The site is situated adjacent to the R546 which provides direct access. The proposed access point will be evaluated by a Traffic Engineer to ensure safety and standards are in order. With one access point and the internal road layout the site will provide safe and secure access and egress as well as sufficient parking bays for private vehicles and busses.

Surface Drainage/ Storm Water Routing

Appropriate storm water management measures will be implemented to ensure that clean and dirt water is separated as well as mitigating soil erosion.



5.1.2 Water Services

Two existing boreholes located on the site will provide water to the cemetery and associated buildings. Currently these two boreholes each deliver approximately 3000 litres per hour, however, quantity and quality tests still need to be done.

5.1.3 Sewerage

A sewage package plant will be installed to accommodate sewage generated from the toilet blocks.

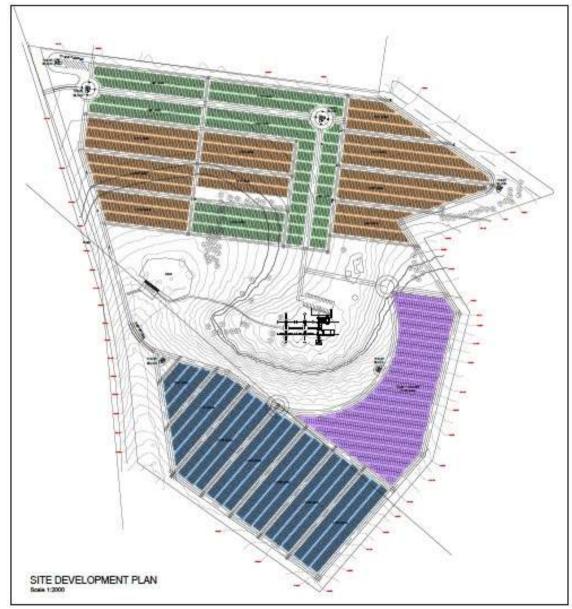
5.1.4 Electricity

The existing municipal electricity supply will continue to be utilised as electricity will only be required for lighting

5.1.5 Traffic

The access point to the cemetery will be evaluated by a Traffic Engineer to ensure safety and standards are in order.





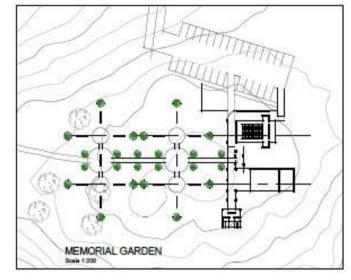




Figure 3: Facility illustration for the proposed development



5.2 Listed Activities triggered by the proposed development

The following listed activities are triggered by the proposed development and therefore require Environmental Authorisation, in terms of the Environmental Impact Assessment Regulations of 4 December 2014:

Table 2: Listed activity/activities triggered by the proposed development

| Government Notice R983 of 4 December 2014 (Listing Notice 1) Government Notice R983 (Listing Notice 1) Activity No. 23 Government Notice R983 (Listing Notice 1) Activity No. 27 Government Notice R983 (Listing Notice 1) Activity No. 27 Government Notice R983 (Listing Notice 1) Activity No. 27 Government Notice R983 (Listing Notice 1) Activity No. 27 Activity No. 27 Government Notice R983 (Listing Notice 1) Activity No. 27 Government Notice R983 (Listing Notice 1) Activity No. 27 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or residential retail. | | activities triggered by the proposed developme | |
|--|--------------------------|--|---|
| Government Notice R983 (Listing Notice 1) Activity No. 23 The development of cemeteries of 2500 square metres or more in size. The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity, or (ii) maintenance management plan. Government Notice R983 (Listing Notice 1) Activity No. 27 Government Notice (iii) maintenance management plan. Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice (iii) maintenance management plan. Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice (iii) maintenance management plan. Government Notice R983 (Listing Notice 1) Activity No. 28 Government Notice (iii) will occur inside an urban area, where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (iii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or industrial or presidential, mixed, retail, commercial, industrial or presidential, industrial or presidential, mixed, retail, commercial, industrial or presidential, mixed, retail, commercial, industrial or presidential, industrial or presidential, mixed, retail, commercial, industrial or presidential, mixed, retail, commercial, industrial or presidential presidential presidential pressent development will be societated and the beat of the Hamba Ka | | Wording as per the Listing Notice | Description as per the project description relating |
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| (ii) maintenance purposes undertaken in accordance with a maintenance management plan. Government Notice R983 (Listing Notice 1) Activity No. 28 Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | | Less than 20 hectares of indigenous vegetation |
| Government Notice R983 (Listing Notice 1) Activity No. 28 Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | (ii) maintenance purposes | will be cleared as part of this development. |
| Government Notice R983 (Listing Notice 1) Activity No. 28 Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | undertaken in accordance with a | · |
| Government Notice R983 (Listing Notice 1) Activity No. 28 Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | maintenance management plan. | |
| R983 (Listing Notice 1) Activity No. 28 industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | Government Notice | | The proposed development site was used for |
| 1) Activity No. 28 where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | R983 (Listing Notice | | · · |
| or afforestation on or after 01 April 1998 and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | , | · | |
| and where such development: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | , , | 0 | · |
| where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | and where such development: | |
| where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | (i) will occur inside an urban area, | |
| hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | | |
| hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | developed is bigger than 5 | |
| where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | | |
| where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | , | |
| developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | | |
| hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or | | | |
| land has already been developed for residential, mixed, retail, commercial, industrial or | | | |
| for residential, mixed, retail, commercial, industrial or | | | |
| commercial, industrial or | | | |
| ' | | | |
| แเรนเนเดาสะ อนายอริธ. | | institutional purposes. | |

5.3 Water Use Licence Activities

No water use activities are anticipated that will require Water Use Registration and/or Licence applications in terms of Chapter 4 of the National Water Act, 1998 (Act No. 36 of 1998).



5.4 Environmental sensitivity overlay map - Map at an appropriate scale that superimposes the proposed activity, its associated structures, and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers.

Please refer to Figure 4 below. As the site is in a disturbed state and there are no environmental sensitivities onsite, there are no areas that should be avoided and there are also no buffers applicable to the site.



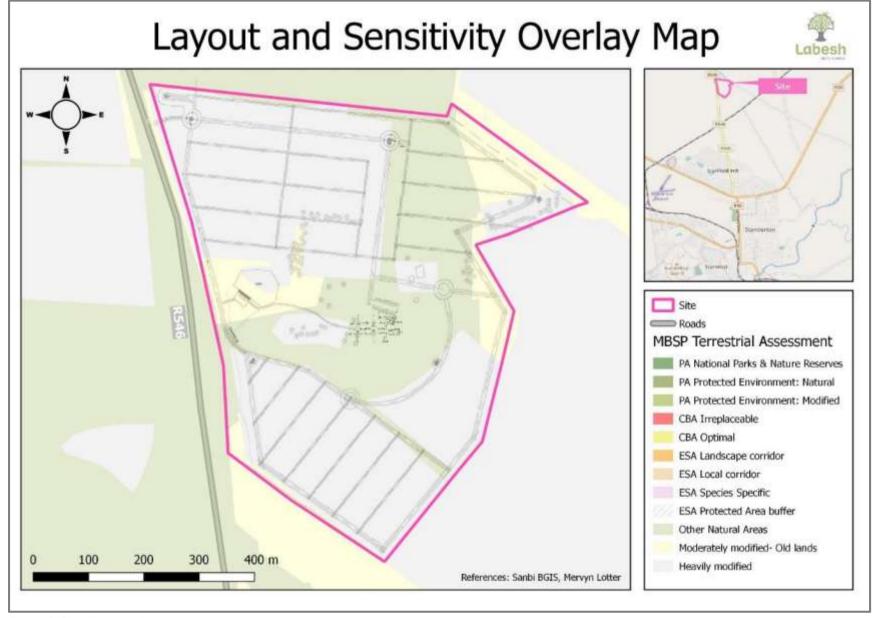


Figure 4: Sensitivity overlay map



POLICY AND LEGISLATIVE CONTEXT OF THE APPLICATION

The following legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments are applicable to the proposed development and have been considered in this Basic Environmental Impact Assessment process.

Legislation

- The Constitution of South Africa, 1996 (Act No. 108 of 1996), as amended
- The National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended
- The Environmental Impact Assessment Regulations of 4 December 2014
- The National Water Act, 1998 (Act No. 36 of 1998), as amended
- The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), as amended
- The National Heritage Resources Act, 1999 (Act No. 25 of 1999), as amended
- The National Appeal Regulations Government Notice No. R.993 of 8 December 2014

Plans

Mpumalanga Biodiversity Sector Plan, 2014

Guidelines

Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010

Spatial tools

SANBI Biodiversity GIS Database

Municipal development planning frameworks

- Lekwa Local Municipality Integrated Development Plan for 2016/2017
- Lekwa Local Municipality Integrated Development Plan for 2015/2016 5th IDP edition
- Lekwa Local Municipality Five-Year Integrated Development Plan 2012-2016 IDP
- Lekwa Local Municipality Spatial Development Framework Final Report 2010

Municipal By-Laws

- Lekwa Spatial Planning and Land Use Management By-law, 2016
- Lekwa Local Municipality Draft Cemetery By-Laws, 2015
- Lekwa Local Municipality Draft Stormwater Management By-Laws, 2015



7. DESCRIPTION OF IMPACT MANAGEMENT OUTCOMES, MANAGEMENT STATEMENTS AND IMPACTS AND RISKS THAT NEED TO BE AVOIDED, MANAGED AND/OR MITIGATED

7.1 Impact Management Outcomes

Please refer to Table 4 under Section 8 below.

7.2 Impact Management Statements

The applicant, C.J.N.S Melkery Trust, commits to implementing the mitigation actions contained in this Environmental Management Programme in order to ensure that the environmental impacts from proposed cemetery are minimised.

7.3 Impacts and risks that need to be avoided, managed and/or mitigated

The following impacts and risks have been identified for the preferred alternative and need to be avoided, managed and/or mitigated:

Table 3: Impacts and Risks Identified for the Preferred Alternative

| Impact | Phase | Risks | |
|-------------------------|---------------------------|---|--|
| | Planning and Design Phase | Inadequate planning or faulty designs may lead to surface and groundwater pollution. | |
| | Construction Phase | Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from vehicles. Sedimentation of water resources. Pollution of surface and/or groundwater resources due to spillages from chemical toilets. Pollution of surface and/or groundwater resources due to the incorrect management, storage and disposal of waste. Pollution of surface and/or groundwater resources due to the runoff of contaminated storm water. | |
| Surface and Groundwater | Operational Phase | Pollution of surface and/or groundwater resources due to hydrocarb spillages or leakages from vehicles. Sedimentation of water resources. Pollution of surface and/or groundwater resources due to spillage from chemical toilets. Pollution of surface and/or groundwater resources due to the incommanagement, storage and disposal of waste. Pollution of surface and/or groundwater resources due to the runoff contaminated storm water. Pollution of surface and/or groundwater resources due to operation the cemetery. | |
| | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process. | |



| Impact | Phase | Risks |
|-------------------------------|--------------------------------------|--|
| Fauna | Construction Phase Operational Phase | Loss of habitat. Habitat fragmentation. Disturbance of any fauna species that may be resident onsite. Disturbance of any fauna species that may be resident onsite. Habitat fragmentation. Provision of artificial habitat for fauna species. |
| | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process. |
| | Construction Phase | Loss of degraded/disturbed vegetation (Soweto Highveld grassland) during site clearance. Establishment and spread of alien invasive vegetation. Risk of veld fires. |
| Flora | Operational Phase | Establishment and spread of alien invasive vegetation (onsite and surrounding areas). Risk of veld fires. |
| | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process. |
| | Construction | |
| Heritage Resources | Phase Operational Phase | Possible disturbance or destruction of cultural and heritage resources. |
| Resources | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process. |
| | Construction | The cite is legated in an area with both year, high and insignificant |
| Palaeontological Resources | Phase Operational Phase | The site is located in an area with both very high and insignificant palaeontological sensitivity. The possibility exists that significant fossil assemblages may be present beneath the site. The disturbance and/or destruction of the fossil assemblages. |
| T.C.C.C. | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process |
| | Construction | Congration of dust by construction vahicles |
| Air Quality and | Phase | Generation of dust by construction vehicles. Release of emissions from construction vehicles. Generation of nuisance and noise from construction vehicles and equipment/machinery. |
| Noise | Operational Phase | Generation of dust by excavation and vehicles onsite. Release of emissions from vehicles. Generation of nuisance and noise from vehicles, excavation and maintenance activities. |



| Impact | Phase | Risks |
|----------------|--|---|
| | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process |
| | | |
| | Planning and Design Phase | Inadequate planning or faulty designs may lead to soil pollution and may cause soil instability and disturbances. |
| Soil | Operational Phase Decommissioning Phase | Soil pollution due to hydrocarbon spillages or leakages from construction vehicles. Soil pollution due to spillages from chemical toilets. Soil pollution due to the incorrect management, storage and disposal of waste (general and hazardous waste). Soil erosion due to the clearance of vegetation and the removal of topsoil and subsoil. Soil compaction to create foundations for buildings and other associated infrastructure. Degradation of topsoil due to incorrect storage practices. Soil pollution due to hydrocarbon spillages or leakages from vehicles. Soil pollution due to the incorrect management, storage and disposal of waste (general and hazardous waste). Soil instability. No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this |
| | | Environmental Impact Assessment process |
| | Construction Phase | Generation of a number of job opportunities. Potential increase in crime due to the influx of workers. Stimulation of the local economy. |
| Socio-economic | Operational Phase | Generation of a number of job opportunities. Stimulation of the local economy. Vandalism of graves. |
| | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process |
| | Conchusting | |
| Traffic | Construction Phase Operational Phase | Increase in traffic volumes to the site. |
| | Decommissioning Phase | No decommissioning activities are anticipated or planned for the cemetery. Therefore, no impacts have been identified or assessed as part of this Environmental Impact Assessment process |
| | | |
| Fire Risk | Construction Phase Operational | Increased risk of fire due to construction/operational activities and increased human activity. |



| Impact | Phase | Risks |
|--------|-----------------|--|
| | Phase | |
| | Decommissioning | No decommissioning activities are anticipated or planned for the cemetery. |
| | Phase | Therefore, no impacts have been identified or assessed as part of this |
| | | Environmental Impact Assessment process |

8. DESCRIPTION OF PROPOSED IMPACT MANAGEMENT ACTIONS (ENVIRONMENTAL MANAGEMENT PROGRAMME ACTIONS)

8.1 Impact Management Outcome and Action Table

Please refer to Table 4 below.



Table 4: Environmental Management Programme – Impact Management Outcome and Action Table

| Aspect | Impact and Nature | Impact Management Outcomes | Impact Management Actions and Statements in order to avoid, modify, remedy, control or stop pollution or environmental degradation | Responsible party/ person(s) |
|--|---|--|---|---|
| Planning and Design | Phase | | | |
| Planning and Design F | Phase | | | |
| Planning and design of the cemetery. | Inadequate planning and design of the cemetery that could result in environmental impacts that could have been avoided. | To effectively plan for and design the cemetery in order to minimise avoidable operational impacts. | All environmental features and sensitive receptors should be taken into account during the design and planning phase. All reasonable measures should be taken to minimise preventable impacts on the environment. | ApplicantDesign Engineer |
| Surface and Ground | water | | | |
| Construction Phase | | | | |
| Pollution of surface and/or groundwater resources due to hydrocarbon spillages or leakages from construction vehicles. | Pollution of surface and/or groundwater resources. | To prevent hydrocarbon spillages and/or leakages from construction vehicles and ensure that any spillages are cleaned effectively. | Spill kits must be onsite to clean up any hydrocarbon spillages. Vehicles should regularly be inspected to ensure that any fuel or oil leaks are repaired. Drip trays should be used for any minor repairs or maintenance work done onsite. Any soil that has been contaminated by oil, diesel or petrol must be regarded as hazardous and disposed of at an appropriately licensed facility. Safe Disposal Certificates must be obtained and kept on record. | ApplicantConstruction contractor |
| Erosion due to soil disturbance may lead to sedimentation of water resources. | Sedimentation of water resources. | To prevent sedimentation and subsequent degradation of water resources. | All reasonable measure should be taken to limit erosion. All areas susceptible to erosion should be protected. Retain vegetation and soil in position as long as possible. Storm water handling measures should be implemented on site. Colonisation of disturbed areas should be monitored to ensure sufficient vegetation cover. All water flow must be directed through controlled management. Landscaping and revegetation should be done after construction. | ApplicantConstruction contractor |
| Spillages from chemical toilets. | Pollution of surface and/or groundwater resources. | To prevent spillages from chemical toilets and ensure that any spillages are cleaned effectively. | Sufficient ablution facilities must be provided. Chemical toilets must be serviced regularly. Ablution facilities are to be secured. Any spillages from the chemical toilets must immediately be cleaned and the contaminated soil disposed of as hazardous waste. | ApplicantConstruction contractor |
| Incorrect management, storage and disposal of construction waste. | Pollution of surface and/or groundwater resources. | To ensure that construction waste is managed in an environmentally responsible manner. | Construction waste must be stored in a designated area. Building rubble must be stored separately from domestic waste. Sufficient waste containers must be provided. All waste containers must be kept clean and hygienic. Building rubble must be kept clean of plastic, cement bags and brick ties. Cement bags (used and unused) should be stored in a weatherproof container. | ApplicantConstruction contractor |
| Runoff of contaminated storm water. | Pollution of surface and/or groundwater resources. | To prevent the contamination of storm water. | Storm water must be diverted around areas where there are pollution sources. All water flow must be directed through controlled management. No contaminated storm water may be released into the environment from construction activities. Storm water drainage infrastructure must be regularly inspected for obstructions. Cement bags (used and unused) should be stored in a weatherproof container. | ApplicantConstruction contractor |
| Operational Phase | | | | |
| Hydrocarbon spillages | Pollution of surface and/or groundwater resources. | To prevent hydrocarbon spillages and/or leakages from vehicles and ensure that any spillages are cleaned effectively. | Vehicles should regularly be inspected to ensure that any fuel or oil leaks are repaired. | Applicant |



| Aspect | Impact and Nature | Impact Management Outcomes | Impact Management Actions and Statements in order to avoid, modify, remedy, control or stop pollution or environmental degradation | Responsible party/ person(s) |
|---|---|--|--|---|
| Incorrect management, storage and disposal of waste. | Pollution of surface and/or groundwater resources. | To ensure that construction waste is managed in an environmentally responsible manner. | Waste must be managed according to its hazard classification (i.e. general vs. hazardous waste) and general and hazardous waste streams should not be mixed. Waste stored onsite must be kept in appropriate containers with lids that can be closed. Waste must be taken to appropriately licensed facilities for reuse, recycling, recovery or disposal. Waste containers must be stored in a designated area. No waste may be stored on open soil. Water quality monitoring must be undertaken to detect any contamination of water resources. | Applicant |
| Runoff of contaminated storm water. | | To prevent the contamination of storm water. | Storm water must be diverted around areas where there are pollution sources. All water flow must be directed through controlled management. No contaminated storm water may be released into the environment from construction activities. Storm water drainage infrastructure must be regularly inspected for obstructions. Cement bags (used and unused) should be stored in a weatherproof container. Water quality monitoring must be undertaken to detect any contamination of water resources. | Applicant |
| Erosion due to soil disturbance may lead to sedimentation of water resources. | Sedimentation of water resources. | To prevent sedimentation and subsequent degradation of water resources. | All reasonable measure should be taken to limit erosion. All areas susceptible to erosion should be protected. Retain vegetation and soil in position as long as possible. Storm water handling measures should be implemented on site. Colonisation of disturbed areas should be monitored to ensure sufficient vegetation cover. All water flow must be directed through controlled management. Landscaping and revegetation should be done after construction. Water quality monitoring must be undertaken to detect any contamination of water resources. | Applicant |
| Pollution of surface and/or groundwater resources due to operation of the cemetery. | Pollution of surface and/or groundwater resources. | To prevent contamination of surface and/or groundwater resources. | Water quality monitoring must be undertaken to detect any contamination of water resources. No graves to be built within 100 metres of drinking water resources. Any open graves showing water intrusion should not be utilised. Proper storm water management and subsurface drainage must be implemented to reduce the impacts of waterlogging and perched water systems. | Applicant |
| Fauna Construction Phase | | | | |
| Site clearance. | Loss of habitat | To minimise loss of available habitat. | If the development is approved, every effort should be made to confine the footprint to the areas allocated for development and have the possible edge effects on the remaining grassveld ecosystem. Watercourse and a 50m buffer zone from the outer edge of the watercourse should be viewed as a no-go zone for any developments. Though the watercourse and its vegetation are ecologically disturbed this watercourse is part of an important conservation corridor network in the larger area. A 50m buffer zone should apply from the bottom of the low narrow rocky ridge which should remain a no-go zone for any developments. This rocky ridge is an important habitat for a diversity of indigenous grass species and forbs. | ApplicantConstruction contractor |
| Construction activities. | Disturbance of any fauna species that may be resident onsite. | To prevent the disturbance of faunal species. | | ApplicantConstruction contractor |
| Construction activities. | Loss of sensitive species. | To prevent loss of sensitive species. | Watercourse and a 50m buffer zone from the outer edge of the watercourse should be viewed as a no-go zone for any developments. Though the watercourse and its vegetation are ecologically disturbed this watercourse is part of an important conservation corridor network in the larger area. A 50m buffer zone should apply from the bottom of the low narrow rocky ridge which should remain a no-go zone for any developments. This rocky ridge is an important conservation area in a stepping stone corridor system for the larger area. Exotic and invasive plant species should not be allowed to establish, if the development is approved so that corridors in the area have a high cover of indigenous species. | ApplicantConstruction contractor |



| Aspect | Impact and Nature | Impact Management Outcomes | Impact Management Actions and Statements in order to avoid, modify, remedy, control or stop pollution or environmental degradation | Responsible party/ person(s) |
|--------------------------|---|---|---|---|
| | | | • If the development is approved, every effort should be made to confine the footprint to the area allocated for development and have the least possible edge effects on the ecosystem. | |
| Construction activities. | Impacts on habitat connectivity and open space (habitat fragmentation). | To minimise impacts on habitat connectivity and open space. | Contractors must ensure that no mammalian species are disturbed, trapped, hunted or killed during the construction phase. If the development is approved, every effort should be made to confine the footprint to the area allocated for the development and have the least possible edge effects on the surrounding area. | ApplicantConstruction contractor |
| Operational Phase | | | | |
| Operational activities. | Disturbance of any fauna species that may be resident onsite. | To minimise the disturbance of fauna species present on site. | Workers must ensure that no mammalian species are disturbed, trapped, hunted or killed during the operation of the cemetery. Grave sites shouldn't be left open for extended periods of time to minimise danger to animals. | Applicant |
| Operational activities | Loss of habitat | To minimise loss of available habitat. | If the development is approved, every effort should be made to confine the footprint to the areas allocated for development and have the possible edge effects on the remaining grassveld ecosystem. Watercourse and a 50m buffer zone from the outer edge of the watercourse should be viewed as a no-go zone for any developments. Though the watercourse and its vegetation are ecologically disturbed this watercourse is part of an important conservation corridor network in the larger area. A 50m buffer zone should apply from the bottom of the low narrow rocky ridge which should remain a no-go zone for any developments. This rocky ridge is an important habitat for a diversity of indigenous grass species and forbs. | Applicant |
| Operational activities | Impacts on habitat connectivity and open space (habitat fragmentation). | To minimise impacts on habitat connectivity and open space. | Watercourse and a 50m buffer zone from the outer edge of the watercourse should be viewed as a no-go zone for any developments. Though the watercourse and its vegetation is ecologically disturbed this watercourse is part of an important conservation corridor network in the larger area. A 50m buffer zone should apply from the bottom of the low narrow rocky ridge which should remain a no-go zone for any developments. This rocky ridge is an important conservation area in a stepping stone corridor system for the larger area. Exotic and invasive plant species should not be allowed to establish, if the development is approved so that corridors in the area have a high cover of indigenous species. If the development is approved, every effort should be made to confine the footprint to the area allocated for development and have the least possible edge effects on the ecosystem. | Applicant |
| Operational activities. | Provision of artificial habitat for fauna species. | This is a positive impact and no r | mitigation measures are therefore required. | Not applicable. |
| Flora | | | | |
| Construction Phase | | | | |
| Site clearance. | Loss of sensitive species. | No management outcome as the site is in a degraded/ disturbed state. | No mitigation measures required as the site is in a degraded/disturbed state. | Not applicable. |
| Construction activities. | Degradation of vegetation. | To minimise the degradation of vegetation present on site. | If the development is approved, every effort should be made to confine the footprint to the area allocated for the development and have the least possible edge effects on the surrounding area. Rubble or waste that could accompany the construction effort, if the development is approved, should be removed during and after construction and not allowed to reach any corridors. If the development is approved the watercourse at the site as well as the low small rocky ridge with its buffer zone of 50 m from the outer limits of the watercourse and rocky ridge should be regarded as a no-go zone during the construction phase, apart from where Red River Gums are eradicated at the low rocky ridge. | ApplicantConstruction contractor |
| Construction activities. | Establishment and spread of alien invasive vegetation (onsite and further than the site). | To prevent the establishment and spread of alien invasive vegetation. | Use only indigenous plant species for gardens and rehabilitation. Eradicate any alien invasive vegetation observed onsite. | ApplicantConstruction contractor |
| Operational Phase | | | | |
| Operational activities. | Establishment and spread of alien invasive vegetation (onsite and further than the site). | - | Same mitigation measures as under construction phase. | Applicant |



| Aspect | Impact and Nature | Impact Manage Outcomes | ement | Impact Management Actions and Statements in order to avoid, modify, remedy, control or stop pollution or environmental degradation | Responsible party/ person(s) |
|--|--|--|---------|---|---|
| Heritage Resources | | | | | |
| Construction and Ope | rational Phases | | | | |
| Construction and operational activities. | Disturbance or destruction of cultural and heritage resources. | To prevent the disturbar destruction of cultural heritage resources. | | • If any cultural or heritage resources, sites, features or objects are exposed during the construction activities, all construction activities in the area must be stopped and a heritage specialist must be contacted to investigate the site and recommend the way forward. | ApplicantConstruction contractor |
| Palaeontological Res | sources | | | | |
| Construction and Ope | rational Phases | | | | |
| Construction and Operational activities. | The disturbance and/or destruction of the fossil assemblages. | To prevent the unregular uncontrolled destruction fossil assemblages. | | A Protocol of Fossil Finds must be compiled and submitted to the South African Heritage Resources Agency. The protocol must be implemented during the construction phase. Should any sites or features of palaeontological significance be found, all activities must be stopped and a qualified specialist be contacted to investigate the site and recommend the way forward. | ApplicantConstruction contractor |
| Air Quality and Noise | e | | | | |
| Construction Phase | | | | | |
| Construction activities. | Generation of dust by construction vehicles. | To prevent the generat dust. | ion of | Implement dust suppression techniques. Retain vegetation in position for as long as possible. A complaints register must be kept on site. Open areas should be re-vegetated as soon as possible. | ApplicantConstruction contractor |
| Construction activities. | Release of emissions from construction vehicles. | To minimise emissions construction vehicles. | from | Regular maintenance of vehicles to minimise the release of emissions. Vehicles and equipment must be switched off when not in use. No unnecessary idling should be allowed. | ApplicantConstruction contractor |
| Construction activities. | Generation of nuisance and noise from construction vehicles and equipment/machinery. | To prevent the generat excessive noise. | ion of | Noisy activities must be scheduled during times of the day that will result in the least disturbance to adjacent sensitive receptors. Noisy work must be avoided on weekends and public holidays. Vehicles must not be left idling unnecessarily. All vehicles must be regularly maintained. A complaints register must be maintained onsite. The complaints register must record the date on which the complaint was lodged, the details of the person lodging the complaint (full name and contact details) and how and when the complaint was addressed. | ApplicantConstruction contractor |
| Operational Phase | | | | | |
| Operational activities. | Generation of dust by vehicles onsite. | To prevent the generat dust. | ion of | Implement dust suppression techniques, if required (for example, if there are any unpaved areas). Retain vegetation on grave sites in position for as long as possible. Soil removed from grave sites must be secured in windy conditions. A complaints register must be maintained onsite. The complaints register must record the date on which the complaint was lodged, the details of the person lodging the complaint (full name and contact details) and how and when the complaint was addressed. | Applicant |
| Operational activities. | Release of emissions from vehicles. | To minimise emissions vehicles. | from | Regular maintenance of vehicles to minimise the release of emissions. Vehicles and equipment must be switched off when not in use. No unnecessary idling should be allowed. | Applicant |
| Operational activities. | Generation of nuisance and noise from vehicles. This also includes nuisance and noise from operational and maintenance activities. | To prevent the generat excessive noise. | ion of | Same mitigation measures as under construction phase. | Applicant |
| Soil | | | | | |
| Planning and Design P | Phase | | | | |
| Planning and design of the cemetery. | Inadequate planning or faulty designs may lead to soil pollution and may cause soil instability and disturbances. | To effectively plan for design the cemetery in or minimise avoidable operating acts. | rder to | All environmental features and sensitive receptors should be taken into account during the design and planning phase. All reasonable measures should be taken to minimise preventable impacts on the environment. | Design EngineerApplicant |



| Aspect | Impact and Nature | Impact Management Outcomes | Impact Management Actions and Statements in order to avoid, modify, remedy, control or stop pollution or environmental degradation | Responsible party/ person(s) |
|--|-------------------------|--|---|---|
| Construction Phase | | | | |
| Hydrocarbon spillages or leakages from vehicles, including construction vehicles. | Soil pollution. | To prevent hydrocarbon spillages and/or leakages from construction vehicles and ensure that any spillages are cleaned effectively. | Use drip trays for any machinery and/or vehicle repair work. Immediately repair any leaking machinery or vehicles. Place oil drums on impermeable surfaces or plastic liners. Immediately clean any hydrocarbon spillages and dispose of as hazardous waste. Safe Disposal Certificates must be obtained and kept on record. | ApplicantConstruction contractor |
| Spillages from chemical toilets. | Soil pollution. | To prevent spillages from chemical toilets and ensure that any spillages are cleaned effectively. | Chemical toilets must be serviced regularly. | ApplicantConstruction contractor |
| The incorrect management, storage and disposal of waste (general and hazardous waste). | Soil pollution. | To ensure that construction waste is managed in an environmentally responsible manner. | Waste must be managed according to its hazard classification (i.e. general vs. hazardous waste) and general and hazardous waste streams should not be mixed. Waste stored onsite must be kept in appropriate containers with lids that can be closed. Waste must be taken to appropriately licensed facilities for reuse, recycling, recovery or disposal. No waste may be stored on open soil. | ApplicantConstruction contractor |
| The clearance of vegetation and the removal of topsoil and subsoil. | Soil erosion. | To prevent soil erosion. | Drainage precautions are required to minimise differential movements and erosion of soil. Limit vegetation clearance until it is necessary for excavation. Implement adequate erosion prevention measures, such as measures to dissipate runoff water velocities. Proper storm water management and subsurface drainage must be implemented to reduce the impacts of waterlogging and perched water systems. Irrigation should be limited to limit contribution to water problems in the low permeability site soils. | ApplicantConstruction contractor |
| Construction activities to create foundations for buildings and other associated infrastructure. | Soil compaction. | To prevent soil compaction. | Soils should be moved when dry, as far as possible. Excessively heavy vehicles should not be used for earthmoving activities. | ApplicantConstruction contractor |
| Incorrect storage practices. | Degradation of topsoil. | To conserve/ protect topsoil. | Topsoil and subsoil must be stored on separate stockpiles. Cover topsoil stockpiles to prevent the soil being washed away during rainfall events. | ApplicantConstruction contractor |
| Operational Phase Hydrocarbon spillages or leakages from vehicles. | Soil pollution. | To prevent hydrocarbon spillages and/or leakages from vehicles and ensure that any spillages are cleaned effectively. | Same mitigation measures as under construction phase. | Applicant |
| Grave excavation, water infilling grave (Operational activities). | Soil Instability. | To prevent soil instability due | Graves should not be left open for extended periods of time. Site soils (notably more clayey and silty materials) will require improvement and stabilisation give the excess fines. Inert soil and synthetic geotextiles may be required to minimise the movement of site soils and to enhance drainage. Water management is required to minimise heave, control preferential infiltration into backfilled graves and minimise pollution. Burial densities should comply with specifications contained in the relevant bylaws of the municipality. | Applicant |
| The incorrect management, storage and disposal of waste (general and hazardous waste). | Soil pollution. | To ensure that waste is managed in an environmentally responsible manner. | Same mitigation measures as under construction phase. | Applicant |



| Aspect | Impact and Nature | Impact Man Outcomes | agement | Impact Management Actions and Statements in order to avoid, modify, remedy, control or stop pollution or environmental degradation | Responsible party/ person(s) |
|---|---|---|--------------|---|---|
| Socio-economic | | | | | |
| Construction Phase | | | | | |
| Construction activities. | Generation of a number of job opportunities. | This is a positive imp | act and no r | nitigation measures are therefore required. | Not applicable. |
| Construction activities. | Potential increase in crime due to | To prevent an in- | crease in | Reference checks should be conducted on all workers before they are appointed. | Applicant |
| | the influx of workers. | incidents of crime in o | die area. | • Workers should not be allowed to leave the construction site during the day and should be transported to and from the site on a daily basis. | Construction contractor |
| Construction activities. Operational Phase | Stimulation of the local economy. | This is a positive imp | act and no r | nitigation measures are therefore required. | Not applicable. |
| Operational activities. | Generation of a number of job opportunities. | This is a positive imp | act and no r | nitigation measures are therefore required. | Not applicable. |
| Operational activities. | Stimulation of the local economy. | This is a positive imp | act and no r | nitigation measures are therefore required. | Not applicable. |
| Operational activities. | Vandalism of graves. | To prevent vand graves. | lalism of | Effective security measures, such as a permanent fence and lockable gate, should be constructed on site. Regular inspection, maintenance and rectification measures (as and when required) of the site should be implemented. | Applicant |
| Traffic | | | | ·O· · · · · · · · · · · · · · · · · · · | |
| Construction Phase | | | | | |
| Construction actives. | Increase in traffic volumes to the site. | To minimise the effincrease in traffic volu | | Ensure that construction vehicles are roadworthy and that drivers comply with road rules. Loads must be securely fastened and may not exceed the tonnage limitations for each vehicle. | ApplicantConstruction contractor |
| Operational Phase | | | | | |
| Operational activities. | Increase in traffic volumes to the site. | To minimise the effincrease in traffic volu | | Same mitigation measures as under construction phase. | Applicant |
| Fire Risk | | | | | |
| Construction and Oper | rational Phase | | | | |
| Construction and operational activities. | Increased risk of fire due to construction and operational activities and increased human activity. | | urrence of | Access to fire-fighting equipment must at all times be unobstructed. Emergency numbers must be clearly displayed at the construction site. No open fires are to be permitted on site. The storage of oil or diesel contaminated rags or soil must be in designated, enclosed containers. The container(s) must be kept in a designated area. | ApplicantConstruction contractor |



8.2 Applicable Environmental Management Standards and Practices

There are no standards and/or practices applicable to the proposed development as water and dust monitoring is not required as part of this EMPr.

8.3 Applicable provisions of the NEMA, 1998, as amended, regarding closure

The provisions of NEMA, 1998, pertaining to closure are not applicable to this proposed development as the development does not include the prospecting, exploration or extraction of a mineral or petroleum resource.

8.4 Applicable provisions of the NEMA, 1998, as amended, regarding financial provision for rehabilitation

The provisions of NEMA, 1998, pertaining to financial provision for rehabilitation are not applicable to this proposed development as the development does not include the prospecting, exploration or extraction of a mineral or petroleum resource.

8.5 Method of monitoring the implementation of the impact management actions **Construction Phase**

An independent Environmental Control Officer (ECO) must be appointed to conduct monthly compliance audits during the construction phase of the proposed development. The audits must verify compliance with the Environmental Authorisation and this Environmental Management Programme and a formal report must be compiled after each audit. The reports must be submitted to the Competent Authority. Once the construction phase has been completed, a postconstruction audit must be conducted by the independent ECO and the report also submitted to the Competent Authority.

Operational Phase

An internal ECO must be appointed to conduct monthly compliance audits during the operational phase of the proposed development and to ensure that corrective actions are implemented where required. Reports resulting from these audits do not need to be submitted to the Competent Authority.

An independent ECO must be appointed to conduct annual compliance audits during the operational phase of the proposed development. The audits must verify compliance with the Environmental Authorisation and this Environmental Management Programme and must comply with the requirements of Appendix 7 of the Environmental Impact Assessment Regulations of 2014, as amended. A formal report must be compiled after each audit and the reports must be submitted to the Competent Authority.

8.6 The frequency of monitoring the implementation of the impact management actions **Construction Phase**

Monthly independent ECO compliance audits.

Operational Phase

Monthly internal ECO compliance audits and annual external ECO compliance audits.

8.7 Persons who will be responsible for the implementation of the impact management actions

The applicant is ultimately responsible for the implementation of the impact management actions, during all phases of the development, even where the implementation of the actions may be contracted out to a third party. During the



construction phase, sub-contractors will for the most part be carrying out the required impact management actions and these actions should therefore be adequately communicated to the contractors. During the operational phase, the applicant will be mostly responsible for carrying out the required impact management actions.

The applicant must appoint a designated person for the function of internal/in-house ECO and an external, suitably qualified Environmental Assessment Practitioner for the function of external, independent ECO.

8.8 Time periods within which the impact management actions must be implemented **Planning and Design Phase**

The management actions for the Planning and Design Phase must be completed before the Pre-construction Phase is commenced with.

Pre-construction Phase

The management actions for the Pre-construction Phase must be completed before the Construction Phase is commenced with.

Construction Phase

The management actions for the Construction Phase must be completed prior to the completion of the Construction Phase (i.e. before the Operational Phase is commenced with).

Operational Phase

The management actions for the Operational Phase must be implemented during the Operational Phase, on a continual basis.

Post-construction and Rehabilitation Phase

The management actions for the Post-construction and Rehabilitation Phase must be completed within one year from the completion of the Construction Phase.

8.9 Mechanism for monitoring compliance with the impact management actions

Please refer to Sections 8.5 and 8.6 of this EMPr.



8.10 Program for reporting on compliance, taking into account the requirements as prescribed by the EIA Regulations, 2014, as amended

Table 5: Reporting program

| Type of reporting | Reporting Frequency | Authority to report to | | | | | | |
|--|---|--------------------------------|--|--|--|--|--|--|
| Construction Phase | | | | | | | | |
| Monthly independent ECO compliance audits | Monthly, for the duration of the construction phase | Competent Authority (MDARDLEA) | | | | | | |
| Post-construction phase independent ECO compliance audit | Once-off, upon completion of the construction phase | Competent Authority (MDARDLEA) | | | | | | |
| Operational Phase | | | | | | | | |
| Monthly independent ECO compliance audits | N/A – Internal | N/A – Internal | | | | | | |
| Annual external ECO compliance audits | Yearly | Competent Authority (MDARDLEA) | | | | | | |

9. ENVIRONMENTAL AWARENESS PLAN

The applicant will ensure that its employees are adequately informed of the environmental risks that may result from work that they conducted onsite and how these risks must be dealt with in order to avoid pollution or the degradation of the environment, through the implementation of this Environmental Awareness Plan.

The Environmental Awareness Plan for the Hamba Kahle Cemetery consists of two parts, namely, initial Induction Training and ongoing job-specific, Toolbox-talk Training. The same training material will be utilised during both the Induction Training and Toolbox-talk Training.

Induction Training

Before any employees or contactors commence work at the cemetery, each individual must undergo an Induction Training session. This is required during the following phases of the proposed project:

- Pre-Construction phase;
- Construction phase; and
- Operational phase.

An attendance register must be kept at the Hamba Kahle Cemetery and each individual who has completed the Induction Training must complete the attendance register. This will also function as an acknowledgement that each individual has understood the training received.

Toolbox-talk Training

Toolbox-talk Training must be conducted biannually during the operational phase of the proposed development and all operational employees must attend these sessions.

An attendance register must be kept at the Hamba Kahle Cemetery and each individual who has completed the Toolboxtalk Training must complete the attendance register. This will also function as an acknowledgement that each individual has understood the training received.



Training Material

The same material will be used for both the Induction Training and Toolbox-talk Training sessions and will cover the following topics:

- What is meant by the term "environment";
- Why the environment requires protection; .
- The environmental risks that may result from work that is performed at the cemetery, during the above mentioned phases of the project;
- How the identified risks may impact upon the environment;
- How the identified risks can be mitigated;
- The protection of workers who refuse to do environmentally hazardous work, as provided for in the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended;
- Environmental Management Programme conditions that are specifically applicable to employee's work onsite;
- Fire-fighting procedures; and
- Hydrocarbon spill response procedure, including spill kit usage training.

The training can be presented in a verbal format if required.

10. SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY

No specific information has been required by the Competent Authority at this stage of the application process.