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PROPOSED MEMORIAL DEVELOPMENT ON PORTION 45 OF THE FARM BEYNESPOORT 335 JR, GAUTENG PROVINCE

Ref. No: Gaut 002/16-17/E0253

Draft BASIC ASSESSMENT REPORT

Prepared for:
Mr. Tebogo Molokomme
Provincial Heritage Resource Authority of Gauteng
35 Rissik Street
Surrey House
Johannesburg
2000

Prepared by:
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27 September 2017

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Co. Reg No: 2016/310652/07
Director: PN van der Merwe
BSc (Hons) Environmental Management

- EAP: P.N. van der Merwe (Director)
- Expertise: Environmental Impact Assessments in Land-use and Infrastructure Development.
- Years of experience: 25. Qualifications: B.Sc. Hons. Environmental Management PU for CHE.
- EAP: Rowan van Tonder (Consultant)
- Expertise: Currently involved with various applications for activities under the National Environmental Management Act (NEMA) (Act 107 of 1998), Mineral and Petroleum Recourses Development Act 2002 (Act No. 28 of 2002), and National Environmental Management: Waste Act, 2008 (Act 59 of 2008).
- Years of experience: 10. Qualifications: M.Sc. Botany, B.Sc. Hons. Physical Geography - Environmental Management at TUKS.

CONTACT DETAILS OF ENVIRONMENTAL ASSESSMENT PRACTITIONER:

Pieter van der Merwe / Rowan van Tonder

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GAUTENG PROVINCE
AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This application form is current as of 8 December 2014. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.**
4. **A draft Basic Assessment Report (1 hard copy and two CD's) must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application.**
5. Five (5) copies (3 hard copies and 2 CDs-PDF) of the final report and attachments must be handed in at offices of the relevant competent authority, as detailed below.
6. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
7. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
8. An incomplete report may lead to an application for environmental authorisation being refused.
9. **Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation being refused.**
10. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation being refused.
11. No faxed or e-mailed reports will be accepted. Only hand delivered or posted applications will be accepted.
12. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
13. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the of the Environmental Affairs Branch
P.O. Box 8769
Johannesburg
2000

Administrative Unit of the of the Environmental Affairs Branch
Ground floor Diamond Building
11 Diagonal Street, Johannesburg

Administrative Unit telephone number: (011) 240 3377
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:	
File Reference Number:	
Application Number:	
Date Received:	

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

N/A

Is a closure plan applicable for this application and has it been included in this report? NO

if not, state reasons for not including the closure plan.

This is also not an activity falling under the MPRDA. It is a proposed cemetery that will have a rehabilitation phase if the proposed cemetery does get decommissioned in the far future.

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity? YES

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person? YES

If no, state reasons for not attaching the list.

Have State Departments including the competent authority commented? NO

If no, why?

Draft BAR is still being circulated for comments.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

PROPOSED CEMETERY DEVELOPMENT ON PORTION 45 OF THE FARM BEYNESPOORT 335-JR, GAUTENG PROVINCE

Select the appropriate box

The application is for an upgrade of an existing development		The application is for a new development	X	Other, specify	

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES [redacted]

If yes, describe the legislation and the Competent Authority administering such legislation

Competent Authority: City of Tshwane Metropolitan Municipality

- **Application is made in terms of Section 16(1) of the City of Tshwane Land Use Management By-law, 2016 for the rezoning;**
- **from "Undetermined to "Special" for Cemetery related uses in terms of the Tshwane Town-Planning Scheme, 2008 (revised 2014)**

Competent Authority: Department of Water Affairs and Sanitation

- **National Water Act, 1998 (Act 36 of 1998);**
- **National Water Act 36 of 1998 - Regulations and Notices - Government Notice R 810.**

If yes, have you applied for the authorisation(s)?
If yes, have you received approval(s)? (attach in appropriate appendix)

YES [redacted]
[redacted] NO

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	**Provincial**	**27 November 1998**
R. 982 National Environmental Management Act (107/1998): Environmental Impact Assessment Regulations, 2014	**Provincial**	**4 December 2014**
National Water Act, 1998 (Act 36 of 1998)	**Provincial**	**26 August 1998**
National Water Act 36 of 1998 - Regulations and Notices - Government Notice R 810	**Provincial**	**10 September 2010**

Description of compliance with the relevant legislation, policy or guideline:

Legislation, policy of guideline	Description of compliance
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended).	R. 982 National Environmental Management Act (107/1998): Environmental Impact Assessment Regulations, 2014
R. 982 National Environmental Management Act (107/1998): Environmental Impact Assessment Regulations, 2014, as amended	R. 983: Listing Notice 1: Activity 23: The establishment of cemeteries of 2500 square meters or more in size Activity 27: The clearance of 1ha or more, but less than 20 ha of

	indigenous vegetation, except where such clearance of indigenous vegetation is required for – i) the undertaking of a linear activity; or ii) maintenance purposes undertaken in accordance with the maintenance management plan R. 985: Listing Notice 3: Activity 12: The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. c. Gauteng: ii. Within Critical Biodiversity Areas or Ecological Supported Areas in the Gauteng Conservation Plan or bioregional plans;
National Water Act, 1998 (Act 36 of 1998)	Water Use License Application (WULA)
National Water Act 36 of 1998 - Regulations and Notices - Government Notice R 810	WULA

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

The following list of alternative types was measured against the proposed cemetery and then discussed with the applicant to reach proper and valid alternatives where applicable. The no-go option will also be described here to form a baseline against which the impacts of the other alternatives are assessed.

Alternative type:
either alternative: site on property
properties
activity
design
technology
energy
operational

No-Go Alternative
If no cemetery is developed then this plot land will stay as agricultural land (of which this land is not viable for any agricultural practice). Either way environmental impacts are already being asserted onto this plot of land. A cemetery will created additional job opportunities and will fill the gap/need for more up market burial ground for the region. This was also the message from the applicant that was researched with pre-investigations of this area.

Provide a description of the alternatives considered

No.	**Alternative type**, either alternative: site on property, properties, activity, design, technology, energy, operational or other(provide details of "other")	**Description**
1	**Proposal**	The proposed cemetery/memorial development itself will be less than 20 ha (200 000 m^2) in extent (13.2ha), including the graves and associated road and parking surfaces. A new access road will be constructed from the R573 over the Remainder of Portion 24 of the farm Beynespoort 335-JR to Portion 45 (portion of Portion 24) of the farm Beynespoort 335-JR. This access road will be about 300m in length with a width of 9m. The proposed uses include the following:

		• Chapel, admin office, kitchen, reception hall, ablutions guard house; • Graves and spaces between graves, access and pathways; • Adult graves; • Child graves; • Memorial wall; • Memorial benches; and • Memorial trees.
2	**Property Alternative**	The property for the proposed development is owned by the applicant. He does not own any other open property for the development. This property is also economically placed, because it is close to Mamemlodi and the R573 passing through the area, still isolated from any road or public noise. The locality alternative will therefore NOT be assessed due to no other site that exists.
3	**Activity Alternative**	An alternative to the proposed development would be to would be to develop a small residential township or nothing. The property is small and not really suitable for any other type of agricultural or wildlife practice. There is an environmental sensitivity on this property in the form of a stream forming the northern boundary of the property that prevents development on that side of the property. The activity alternative will be assessed.
4	**Design or Layout Alternative**	The layout of this proposed development has been thoroughly thought out taking inconsideration of all the environmental sensitivities on-site. All measures of design in this regards were and will still be considered and implemented. The design/layout alternative can NOT be assessed due to the constraints placed at this site.
5	**Technology to be used – Alternative**	The Site is not serviced at present. The Site with the future Cemetery to be developed will in all probability have a ZMD (Zoned Maximum Demand) of 13.8 kVA due to the very low energy demand associated with this type of land use. The Developer to exclusively make use of renewable energy for the total demand of the Site. The technological layout of the proposed development and the provision of electricity through solar energy generation are considered. This can imply the installation of visible solar panels for partial or self- sustaining electricity provision to the proposed development. The technology alternative will be assessed.
6	**Operational Aspect Alternative**	A very small operational aspect is needed for this proposed development due to its small and low impact footprint. The operational alternative will therefore NOT be assessed.

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

Not applicable

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

	Size of the activity:
Proposed activity ***(Total environmental (landscaping, parking, etc.) and the building footprint)***	**13.2 Ha**
Alternatives:	
Alternative 1 (if any)	
Alternative 3 (activity: residential township)	**13.2 Ha**
	Ha/ m^2

or, for linear activities: **N/A**

	Length of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	m/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

	Size of the site/servitude:
Proposed activity: Portion 45 of the farm Beynespoort 335-JR	**22.0746 Ha**
Alternatives:	
Alternative 1 (if any)	
Alternative 3 (activity: residential township)	**22.0746 Ha**
	Ha/m^2

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road? **There is an existing road to the site, entering from the east off the R573, to a gate situated on the northern boundary.**	YES and NO
If NO, what is the distance over which a new access road will be built	300m

Describe the type of access road planned:

A new access road (primary access) will be constructed from the R573 over the Remainder of Portion 24 of the farm Beynespoort 335-JR to Portion 45 (portion of Portion 24) of the farm Beynespoort 335-JR. This access road will be about 300m in length with a width of 9m. Please refer to the TIA for further detail.

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	YES
If NO, what is the distance over which a new access road will be built	m

Describe the type of access road planned:

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 3 (activity: Residential township)

Does ready access to the site exist, or is access directly from an existing road?	YES
If NO, what is the distance over which a new access road will be built	300m

Describe the type of access road planned:

A new access road (primary access) will be constructed from the R573 over the Remainder of Portion 24 of the farm Beynespoort 335-JR to Portion 45 (portion of Portion 24) of the farm Beynespoort 335-JR. This access road will be about 300m in length with a width of 9m. Please refer to the TIA for further detail.

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated **0** Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

THE SAME SITE WILL BE USED FOR ALL POSSIBLE ALTERNATIVES

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.

- A4 size for activities with development footprint of 10sqm to 5 hectares;
- A3 size for activities with development footprint of > 5 hectares to 20 hectares;
- A2 size for activities with development footprint of >20 hectares to 50 hectares);
- A1 size for activities with development footprint of >50 hectares);

- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500
  - A1 = 1: 1000
  - A2 = 1: 2000
  - A3 = 1: 4000
  - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

7. SITE PHOTOGRAPHS

THE SAME SITE WILL BE USED FOR ALL POSSIBLE ALTERNATIVES

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)
THE RECEIVING ENVIRONMENT IS THE SAME FOR ALL THE ALTERNATIVES, BECAUSE THIS IS THE ONLY SITE AVAILABLE.

Instructions for completion of Section B for linear activities

1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
2) Indicate on a plan(s) the different environments identified
3) Complete Section B for each of the above areas identified
4) Attach to this form in a chronological order
5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route | **0** | times

Instructions for completion of Section B for location/route alternatives

1) For each location/route alternative identified the entire Section B needs to be completed
2) Each alterative location/route needs to be clearly indicated at the top of the next page
3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives | **0** | times (complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route | **N/A** | (complete only when appropriate for above)

Section B – Location/route Alternative No. | **N/A** | (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description: (Including Physical Address and Farm name, portion etc.)	**Portion 45 of the farm Beynespoort 335-JR**

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:	**Latitude (S):**	**Longitude (E):**
	-25.649696°	**28.452544°**

In the case of linear activities: N/A

Alternative:	**Latitude (S):**	**Longitude (E):**
• Starting point of the activity	°	°
• Middle point of the activity	°	°
• End point of the activity	°	°

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

The 21 digit Surveyor General code of each cadastral land parcel

PROPOSAL	T	0	J	R	0	0	0	0	0	0	0	0	0	3	3	5	0	0	0	4	5
ALT. 1																					
ALT. 2																					
etc.																					

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	**Steeper than 1:5**

4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	**Side slope of hill/ridge**	**Valley**	Plain	Undulating plain/low hills	River front

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep)	NO
Dolomite, sinkhole or doline areas	NO
Seasonally wet soils (often close to water bodies)	NO
Unstable rocky slopes or steep slopes with loose soil	NO
Dispersive soils (soils that dissolve in water)	NO
Soils with high clay content (clay fraction more than 40%)	NO
Any other unstable soil or geological feature	NO
An area sensitive to erosion	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any caves located on the site(s) NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

c) are any caves located within a 300m radius of the site(s) NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

d) are any sinkholes located within a 300m radius of the site(s) NO

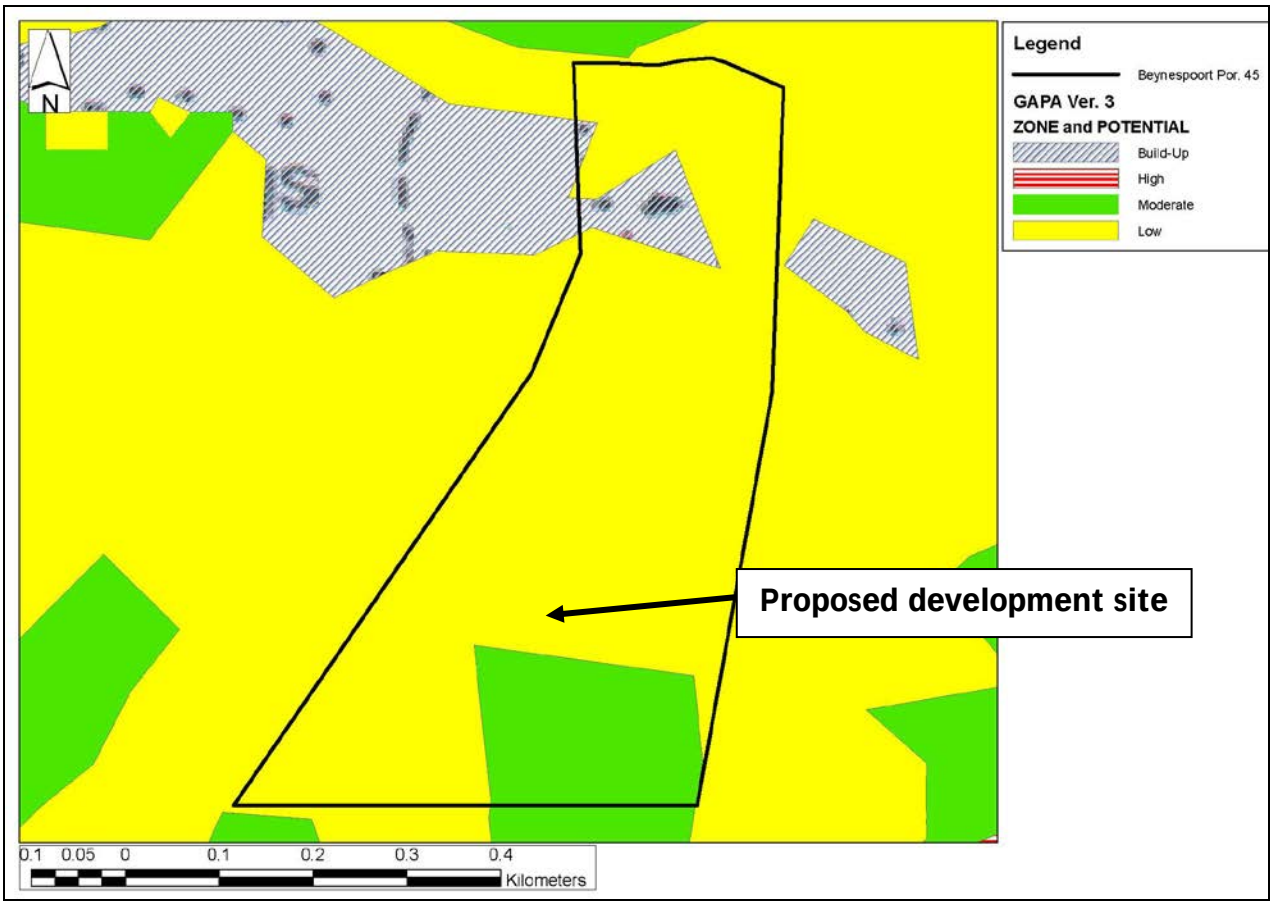
If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

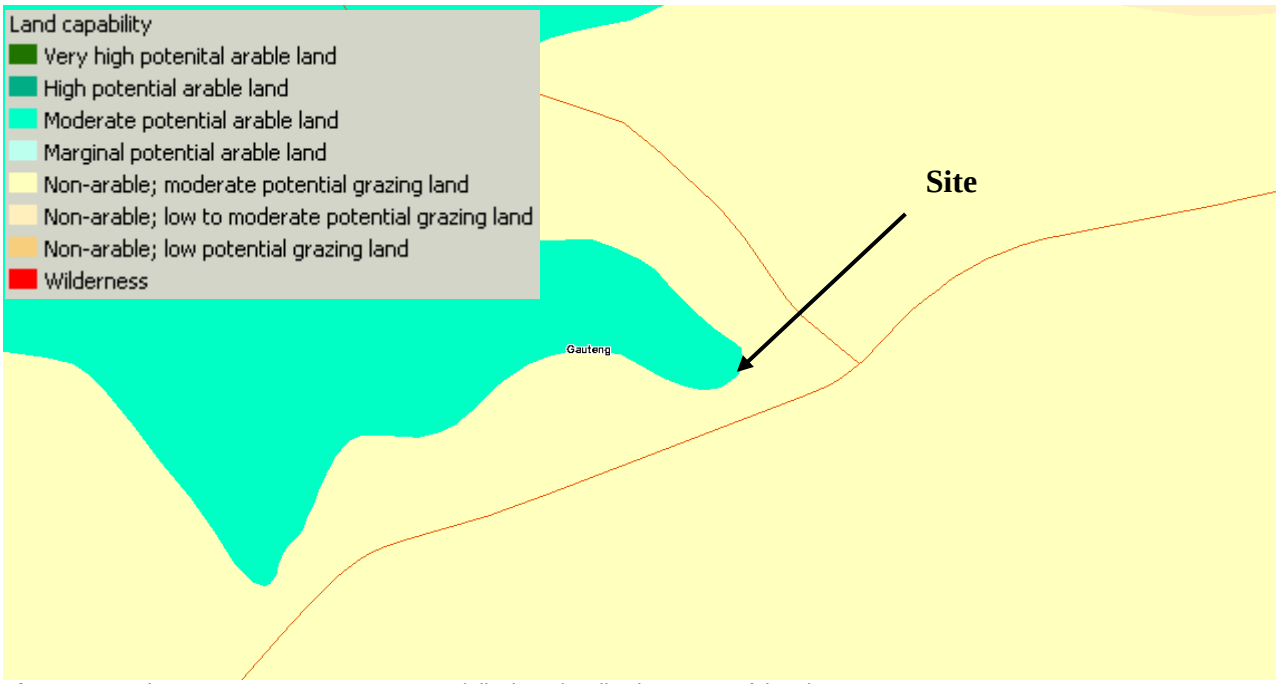
Latitude (S):	**Longitude (E):**
°	°

If any of the answers to the above are “YES” or “unsure”, specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)? NO





Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % = 50	Natural veld with scattered aliens % = 10	Natural veld with heavy alien infestation % = 5	Veld dominated by alien species % = 5	Landscaped (vegetation) % = 0
Sport field % = 0	Cultivated land % = 10	Paved surface (hard landscaping) % = 0	Building or other structure % = 5	Bare soil % = 15

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site — NO

If YES, specify and explain:

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site. — NO

If YES, specify and explain:

Are there any special or sensitive habitats or other natural features present on the site? — NO

If YES, specify and explain:

A small stream flows through the site.

Was a specialist consulted to assist with completing this section — NO

If yes complete specialist details

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist? — NO

If YES, specify:

If YES, is such a report(s) attached? — NO

If YES list the specialist reports attached below

Signature of specialist: _____ Date:

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial[AN]	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport[N]	23. Train station or shunting yard[N]	24. Railway line[N]	25. Major road (4 lanes or more)[N]
26. Sewage treatment plant[A]	27. Landfill or waste treatment site[A]	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam[A]	34. Small Holdings	35. Farm Stead
36. Natural veld	37. Quarry			
Other land uses (describe):				

NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks

NORTH

2,36,37	**2,36**	**2,36,37**	**2,7,36**	**7,34,35,36**
7,36	**35,36,37**	**35,36**	**2,7,35**	**2,36**
36,37	**7,36**		**7,8,28**	**7,12,35,36**
36,37	**7,36**	**7,35,36**	**7,353,6**	**7,35,36**
7,36	**7,36**	**7,36**	**7,36**	**7,36**

WEST

EAST

SOUTH

= Site

Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached YES

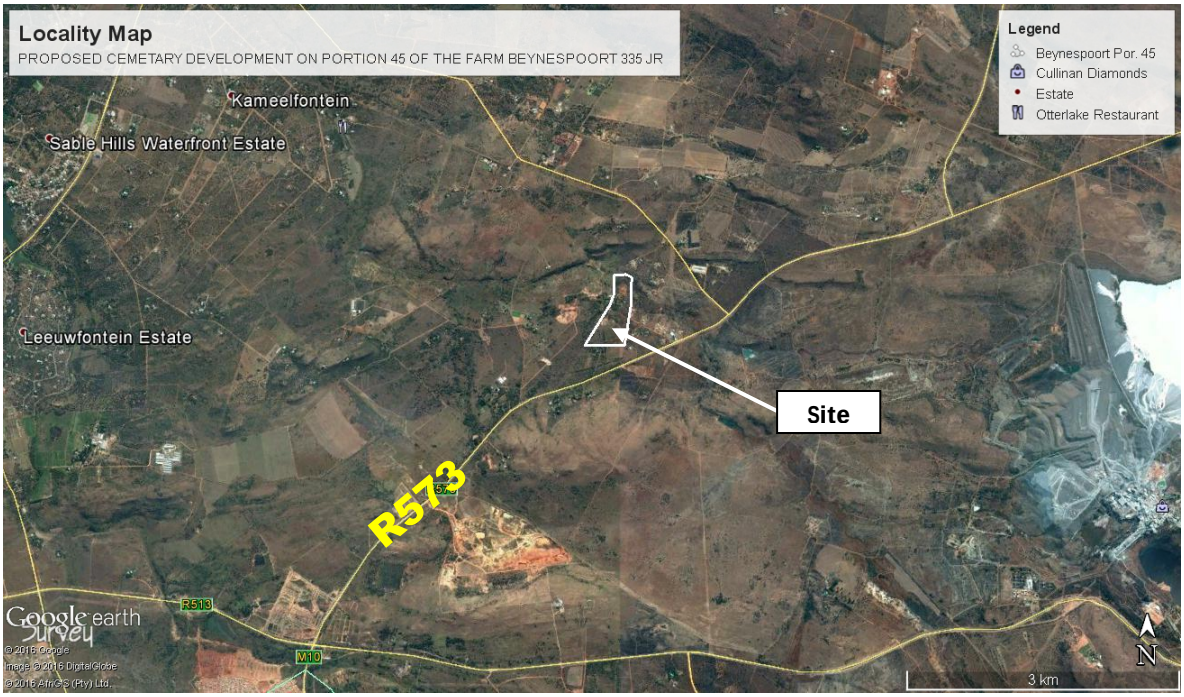
If yes indicate the type of reports below

Heritage Impact Assessment
Vegetation Study
Fauna Study
Traffic Impact Assessment
Townplanning Memo

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

The site is located on the southern boundary of Seringveld Conservancy; within the City of Tshwane Metropolitan Municipality. The locality of the proposed development is on the Portion 45 of the farm Beynespoort 335-JR: Latitude: -25.649710°; Longitude: 28.452471° (entrance to the site). The total size of the property is 22.0746ha and situated within the 2528CB (Silverton) quarter degree grid cell (q.d.g.c.). The turn-off to the proposed development can be reach from the R573, 680m before the Kameelfontein Rd turn-off, in the direction of KwaMhlanga. The access to the site is another 695m on this gravel road on your left-hand side. A new access road will be constructed from the R573 over the Remainder of Portion 24 of the farm Beynespoort 335-JR to Portion 45 (portion of Portion 24) of the farm Beynespoort 335-JR. This access road will be about 300m in length with a width of 9m.



Registered owner:
The farm portion is registered in the name of " Pretorius Wentzel Peter".
Title Deed: T046863/2007

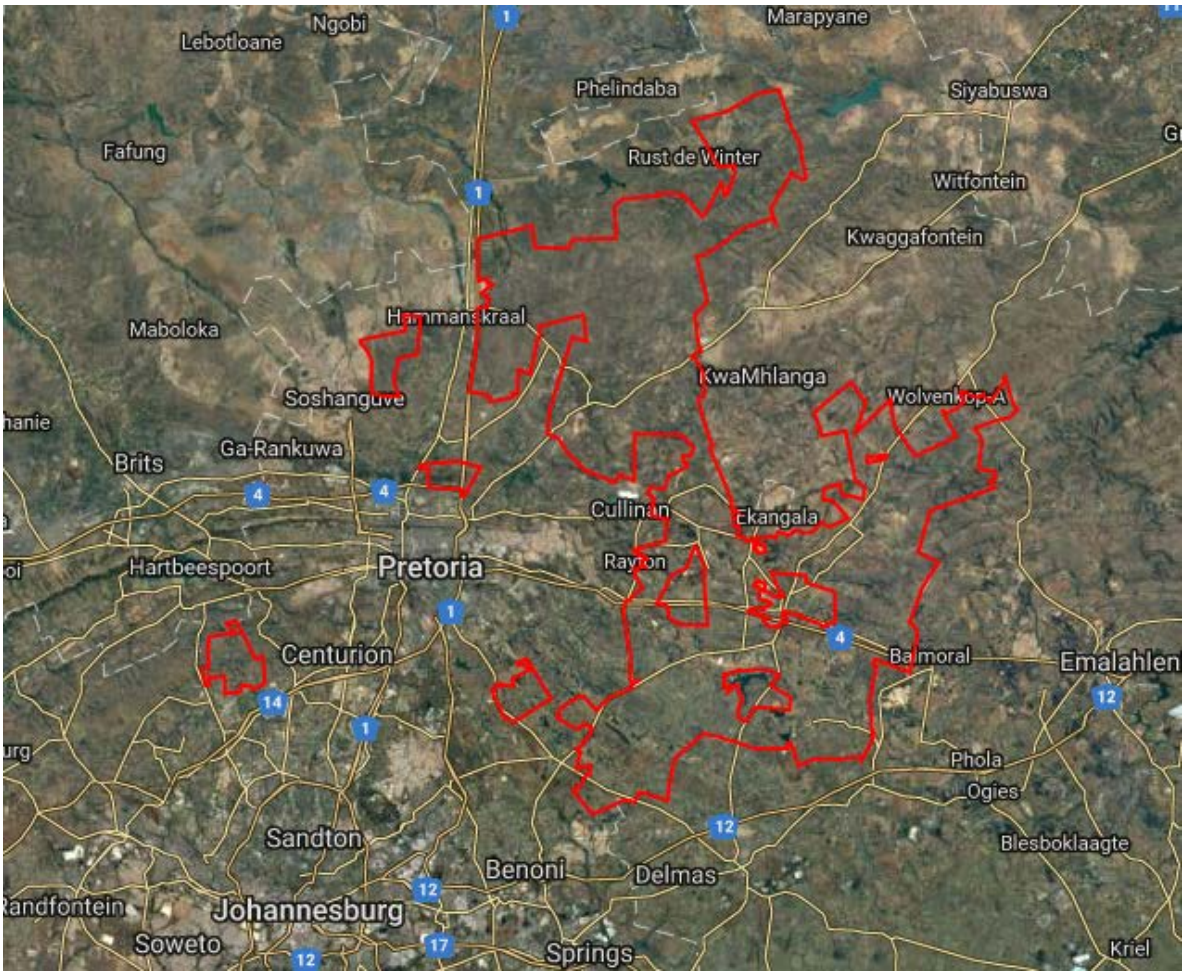
Existing Zoning:
The property is zoned "Undetermined" in terms of the Tshwane Town Planning Scheme, 2008.

Existing Land Use:
The properties are currently used for rural residential purposes, the part of the property to be utilized for the proposed memorial park/cemetery is undeveloped except for an old borrow pit that is situated on the property.

Surrounding Land uses:
The majority of the land uses surrounding the application property is agricultural and rural residential. There are mining activities to the south and east and residential developments of Mahube Valley, Glenway Estates and Mamelodi extensions situated approximately 4 kilometres to the south of the application site. Other land uses surrounding the application site include an agricultural industry (poultry) and training centre to the north, a general business and workshop to the west and a tombstone business to the west

See statistics below (from Stats SA Population Census 2001):

Tshwane NU
Main Place 799026 from Census 2011



Area: 3126.37 km²
Population: 16831 (5.38 per km²)
Households: 4602 (1.47 per km²)

Gender	People	Percentage
Male	8984	53.38%
Female	7847	46.62%

Population group	People	Percentage
Black African	12682	75.35%
White	3952	23.48%
Coloured	100	0.59%
Other	81	0.48%
Indian or Asian	16	0.10%

First language	People	Percentage
isiNdebele	4750	28.72%

Afrikaans	3752	22.68%
isiZulu	1736	10.50%
Sepedi	1637	9.90%
Xitsonga	1023	6.19%
English	889	5.37%
Sesotho	776	4.69%
Setswana	758	4.58%
Other	566	3.42%
isiXhosa	247	1.49%
SiSwati	207	1.25%
Tshivenda	153	0.93%
Sign language	43	0.26%
Not applicable	*291*	

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50m in length;

(c) any development or other activity which will change the character of a site-

(i) exceeding 5 000 m2 in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m2 in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site? If YES, explain:	NO

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

As taken from the HIA report:

3.2 SPECIFIC CATEGORIES INVESTIGATED AS PER SECTION 3 (1) AND (2) OF THE NATIONAL HERITAGE LEGISLATION (ACT 25 OF 1999)

3.2.1 Does the site/s provide the context for a wider number of places, buildings, structures and equipment of cultural significance?
The study area does not provide context for a wider number of places, buildings, structures and equipment of cultural significance. The reason being the low density of heritage items in the study area.

3.2.2 Does the site/s contain places to which oral traditions are attached or which are associated with living heritage?
Places to which oral traditions are attached or associated with living heritage are usually find in conjunction with traditional settlements and villages which still practices age old traditions. None of these are evident near or on the proposed site.

3.2.3 Does the site/s contain historical settlements?
No historical settlements are located on or near the proposed site.

3.2.4 Does the site/s contain landscapes and natural features of cultural significance?
Due to infra-structure development and farming activities the original character of the landscape has been altered significantly in the study area. There the site does not contain natural features of cultural significance.

3.2.5 Does the site/s contain geological sites of cultural importance?
Geological sites of cultural importance include meteorite sites (Tswaing Crater and Vredefort Dome), fossil sites (Karoo and Krugersdorp area), important mountain ranges or ridges (Magaliesburg, Drakensberg etc.). The proposed site is not located in an area known for sites of this importance.

3.2.6 Does the site/s contain a wide range of archaeological sites?
The proposed site does not contain any surface archaeological deposits; a possible reason is previous infrastructure development activities in the greater study area. The possibility of sub-surface findings always exists and should be taken into consideration in the Environmental Management Programme. If sub-surface archaeological material is discovered work must stop and a heritage practitioner preferably an archaeologist contacted to assess the find and make recommendations.

3.2.7 Does the site/s contain any marked graves and burial grounds?
The site does not contain any marked graves or burial grounds. The possibility of graves not visible to the human eye always exists and this should be taken into consideration in the Environmental Management Plan. It is important to note that all graves and cemeteries are of high significance and are protected by various laws. Legislation with regard to graves includes the National Heritage Resources Act (Act 25 of 1999) whenever graves are 60 years and older. Other legislation with regard to graves includes those when graves are exhumed and relocated, namely the Ordinance on Exhumations (no 12 of 1980) and the Human Tissues Act (Act 65 of 1983 as amended). If sub-surface graves are discovered work should stop and a professional preferably an archaeologist contacted to assess the age of the grave/graves and to advice on the way forward.

3.2.8 Does the site/s contain aspects that relate to the history of slavery?
This is not an area associated with the history of slavery like the Western Cape Province.

3.2.9 Can the place be considered as a place that is important to the community or in the pattern of South African history?
In primary and secondary sources the proposed site is not described as important to the community or in the pattern of South African history.

3.2.10 Does the site/s embody the quality of a place possessing uncommon or rare endangered aspects of South Africa's natural and cultural heritage?
The proposed site does not possess uncommon, rare or endangered aspects of South Africa's natural and cultural heritage. These sites are usually regarded as Grade 1 or World Heritage Sites.

3.2.11 Does the site/s demonstrate the principal characteristics of South Africa's natural or cultural places?
The proposed site does not demonstrate the principal characteristics of South Africa's natural or cultural places. These characteristics are usually associated with aesthetic significance.

3.2.12 Does the site/s exhibit particular aesthetic characteristics valued by the community or cultural groups?
This part of the greater study area does not exhibit particular aesthetic characteristics valued by the community or cultural groups. The reason being the low density of heritage buildings and structures located in the greater study area.

3.2.13 Does the site/s contain elements, which are important in demonstrating a high degree of creative technical achievement?
The site does not contain elements which are important in demonstrating a high degree of creative technical achievement. Reason being none of the above are evident on site.

3.2.14 Does the site/s have strong and special associations with particular communities and cultural groups for social, cultural and spiritual reasons?
The proposed site does not have a strong or special association with particular communities and cultural groups for social, cultural and spiritual reasons. No comment in this regard was received during the public participation period.

3.2.15 Does the site/s have a strong and special association with the life or work of a person, group or organisation?
No indication of the above could be found in primary and secondary research sources.

4. RECOMMENDATIONS

- There are no visible restrictions or negative impacts in terms of heritage associated with the site.
- In terms of heritage this project can proceed.
- The discovery of subsurface archaeological and/or historical material as well as graves must be taken into account in the Environmental Management Programme. See 3.2.6 and 3.2.7.

Will any building or structure older than 60 years be affected in any way?	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	NO
If yes, please attached the comments from SAHRA in the appropriate Appendix	

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?	YES [redacted]
If yes, has any comments been received from the local authority?	[redacted] NO

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

Still circulating for comments.

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	[redacted] NO

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

Still circulating for comments.

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed.

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued as required in terms of the regulations

Appendix 3 – Proof of newspaper advertisements

Appendix 4 –Communications to and from interested and affected parties

Appendix 5 – Minutes of any public and/or stakeholder meetings

Appendix 6 - Comments and Responses Report

Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report

Appendix 8 –Comments from I&APs on amendments to the BA Report

Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
4) Each alterative needs to be clearly indicated in the box below
5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives | **3** | times | (complete only when appropriate)

Section D Alternative No. | **1 - Proposed** | (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? YES

If yes, what estimated quantity will be produced per month? **2.5 m^3**

How will the construction solid waste be disposed of (describe)?

The solid construction waste such as overburden material will be used as backfilling in areas where necessary and some will be disposed of at the nearest waste disposal site or quarry.

Where will the construction solid waste be disposed of (describe)?

At the closest appropriate registered municipal waste disposal site (Hatherley, Mamelodi or Derdepoort) by the licensed waste disposal contractor to be appointed by the site contractor.

Will the activity produce solid waste during its operational phase? YES

If yes, what estimated quantity will be produced per month? **0.5 m^3**

How will the solid waste be disposed of (describe)?

Solid waste will be collected by municipal services or by a registered solid waste contractor.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? NO

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

All operational solid waste will always be disposed of at a registered landfill site.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? NO

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

None. But separate recycling bins can be implemented if municipal services allow the pick-up of recycled material.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	NO
If yes, what estimated quantity will be produced per month?	m^3
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?	NO

Will the activity produce any effluent that will be treated and/or disposed of on site?	NO
If yes, what estimated quantity will be produced per month?	

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility? NO

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A: See above.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	NO
If yes, what estimated quantity will be produced per month?	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	NO

Will the activity produce any effluent that will be treated and/or disposed of on site? YES

If yes describe how it will be treated and disposed off.

The office and ablution facilities on the Site will make use of conservancy tanks for the collection of sewage effluent to be removed by way of a tanker service as required.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere? YES

If yes, is it controlled by any legislation of any sphere of government? NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Vehicles coming into the development will release the normal carbon monoxide gasses and there will be dust generated during the construction phase.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

municipal	Directly from water board	**groundwater**	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

A Maximum of 1350 Kilo litres, but will most likely not reach that amount

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix:

See Appendix G: Specialist Reports: Geo-Hydro Report

Does the activity require a water use permit from the Department of Water Affairs? YES

If yes, list the permits required

Water use licence application (WULA):

In terms of the National Water Act, 1998 (Act 36 of 1998) with regards to the application

for a Water Use License:

This is due to the fact that groundwater will be abstracted and the proposed development will take place within 100 m from a riparian zone and will trigger activities:

Section 21(a): taking water from a water resource;

Section 21(c): impeding or diverting the flow of water in a watercourse; and

Section 21(i): altering the bed, banks, course or characteristics of a watercourse.

If yes, have you applied for the water use permit(s)?	YES
If yes, have you received approval(s)? (attached in appropriate appendix)	NO

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

The Site is not serviced at present. The Site with the future Cemetery to be developed will in all probability have a ZMD (Zoned Maximum Demand) of 13.8 kVA due to the very low energy demand associated with this type of land use. The exact demand and bulk services contribution will however be calculated and confirmed by Tshwane's Engineer when evaluating the application. It is the intention of the Developer to exclusively make use of renewable energy for the total demand of the Site.

If power supply is not available, where will power be sourced from?

N/A

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Energy efficient light bulbs (florescent/LED) will be used for all lighting purposes. No other measures are known at this stage.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

None

Section D Alternative No. **3 – Alternative Activity** (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	YES
If yes, what estimated quantity will be produced per month?	**8 m^3**

How will the construction solid waste be disposed of (describe)?

The solid construction waste such as overburden material will be used as backfilling in areas where necessary and some will be disposed of at the nearest waste disposal site or quarry.

Where will the construction solid waste be disposed of (describe)?

At the closest appropriate registered municipal waste disposal site (Hatherley, Mamelodi or Derdepoort) by the licensed waste disposal contractor to be appointed by the site contractor.

Will the activity produce solid waste during its operational phase?	YES
If yes, what estimated quantity will be produced per month?	**4 m^3**

How will the solid waste be disposed of (describe)?

Solid waste will be collected by municipal services or by a registered solid waste contractor.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?	NO

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

All operational solid waste will always be disposed of at a registered landfill site.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? NO
If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

None. But separate recycling bins can be implemented if municipal services allow the pick-up of recycled material.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? NO
If yes, what estimated quantity will be produced per month? m^3
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? NO

Will the activity produce any effluent that will be treated and/or disposed of on site? NO
If yes, what estimated quantity will be produced per month?

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility? NO
If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A: See above.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? NO
If yes, what estimated quantity will be produced per month?
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? NO

Will the activity produce any effluent that will be treated and/or disposed of on site? YES
If yes describe how it will be treated and disposed off.

The site will make use of conservancy tanks, depending on the amount of houses occupied, for the collection of sewage effluent to be removed by way of a tanker service as required. Otherwise a sewage service connection from the municipality will have to be sourced.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere? YES
If yes, is it controlled by any legislation of any sphere of government? NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the emissions in terms of type and concentration:

Vehicles coming into the Residential township will release the normal carbon monoxide gasses and there will be dust generated as well.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix
Does the activity require a water use permit from the Department of Water Affairs? NO
If yes, list the permits required

In this instance a water service connection from the municipality will have to be sourced.

If yes, have you applied for the water use permit(s)? YES
If yes, have you received approval(s)? (attached in appropriate appendix) NO

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

The Site is not serviced at present. The Site with the future Cemetery to be developed will in all probability have a ZMD (Zoned Maximum Demand) of 13.8 kVA due to the very low energy demand associated with this type of land use. The exact demand and bulk services contribution will however be calculated and confirmed by Tshwane's Engineer when evaluating the application. It is the intention of the Developer to exclusively make use of renewable energy for the total demand of the Site.

If power supply is not available, where will power be sourced from?

N/A

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Energy efficient light bulbs (florescent) will be used for all lighting purposes. No other measures are known at this stage.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

None

Section D Alternative No. **5 - Technology Alternative** (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase? YES
If yes, what estimated quantity will be produced per month? **2.5 m^3**
How will the construction solid waste be disposed of (describe)?

The solid construction waste such as overburden material will be used as backfilling in areas where necessary and some will be disposed of at the nearest waste disposal site or quarry.

Where will the construction solid waste be disposed of (describe)?

At the closest appropriate registered municipal waste disposal site (Hatherley, Mamelodi or Derdepoort) by the licensed waste disposal contractor to be appointed by the site contractor.

Will the activity produce solid waste during its operational phase? YES
If yes, what estimated quantity will be produced per month? **0.5 m^3**

How will the solid waste be disposed of (describe)?

Solid waste will be collected by municipal services or by a registered solid waste contractor.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? NO

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

All operational solid waste will always be disposed of at a registered landfill site.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? NO
If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

None. But separate recycling bins can be implemented if municipal services allow the pick-up of recycled material.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? NO
If yes, what estimated quantity will be produced per month? m^3
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? NO

Will the activity produce any effluent that will be treated and/or disposed of on site? NO
If yes, what estimated quantity will be produced per month?

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility? NO
If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A: See above.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? NO
If yes, what estimated quantity will be produced per month?
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? NO

Will the activity produce any effluent that will be treated and/or disposed of on site? YES
If yes describe how it will be treated and disposed off.

The office and ablution facilities on the Site will make use of conservancy tanks for the collection of sewage effluent to be removed by way of a tanker service as required.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere? YES
If yes, is it controlled by any legislation of any sphere of government? NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.
If no, describe the emissions in terms of type and concentration:

Vehicles coming into the development will release the normal carbon monoxide gasses and there will be dust generated during the construction phase.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

municipal	Directly from water board	**groundwater**	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

A Maximum of 1350 Kilo litres, but will most likely not reach that amount

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix:
See Appendix G: Specialist Reports: Geo-Hydro Report

Does the activity require a water use permit from the Department of Water Affairs? YES

If yes, list the permits required

Water use licence application (WULA):

In terms of the National Water Act, 1998 (Act 36 of 1998) with regards to the application for a Water Use License:

This is due to the fact that groundwater will be abstracted and the proposed development will take place within 100 m from a riparian zone and will trigger activities:

Section 21(a): taking water from a water resource;

Section 21(c): impeding or diverting the flow of water in a watercourse; and

Section 21(i): altering the bed, banks, course or characteristics of a watercourse.

If yes, have you applied for the water use permit(s)? YES

If yes, have you received approval(s)? (attached in appropriate appendix) NO

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

The Site is not serviced at present. The Site with the future Cemetery to be developed will in all probability have a ZMD (Zoned Maximum Demand) of 13.8 kVA due to the very low energy demand associated with this type of land use. The exact demand and bulk services contribution will however be calculated and confirmed by Tshwane's Engineer when evaluating the application. It is the intention of the Developer to exclusively make use of renewable energy for the total demand of the Site.

If power supply is not available, where will power be sourced from?

N/A

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Energy efficient light bulbs (florescent/LED) will be used for all lighting purposes. No other measures are known at this stage.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

None

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

1. **Noise, dust and domestic waste from the development;**
2. **Maintenance of gravel road leading to the cemetery;**
3. **Traffic congestion;**
4. **Security;**
5. **Reduction of property value;**
6. **Possible impact of dead bodies/pollution on drinking water/underground & surface water.**

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)
(A full response must be provided in the Comments and Response Report that must be attached to this report):

1. **This proposed cemetery is in the countryside noise should not be a problem. This cemetery/memorial park will have strict regulations on noise during funeral events. Access to this set property will be from the main tar road (R573) directly into the property and should not affect local roads or traffic. These roads will be tarred or paved. Waste management will be in place and the EMPr will have to be adhered to at all times by the applicant.**
2. **Access to this set property will be from the main tar road (R573) directly into the property and should not affect local roads or traffic.**
3. **Access to this set property will be from the main tar road (R573, which is a provincial road and not of local concern) directly into the property and should not affect local roads or traffic.**
4. **The cemetery will have 24 hour security.**
5. **This will be a formal development of high standards that will not degrade the local environment. In fact it will enhance this section of the property. It is in our opinion and experience that this proposed memorial park / typical developments will in fact enhance the property value including the surrounding properties.**
6. **Bi-Annual hydraulic testing of boreholes will help detect and prevent the possible spread of contamination beyond the border of the memorial. This will also address the monitoring of sustainable yields of the on-site boreholes. According to the geohydrologist: Pathogens, organic leachate from decomposing bodies, and organic embalming fluids (e.g. formaldehyde) will very likely attenuate/breakdown naturally in the unsaturated zone (clay soil) prior to reaching the groundwater table. The depth of groundwater is in the order of 20m below surface, which represents enough residence time for natural attenuation in the unsaturated zone. The stormwater management plan addresses the surface water flow across the proposed site in order to prevent any erosion from taking place and possible contamination 'downstream'.**

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

The Significance of Environmental Impacts is to be assessed by means of the following method:

Significance is the product of probability and severity.

Probability describes the likelihood of the impact actually occurring, and is rated as follows:

- **Improbable** - **Low possibility of impact to occur either because of design or historic experience.**
  Rating = 2
- **Probable** - **Prominent possibility that impact will occur.**
  Rating = 3
- **Highly probable** - **Most likely that impact will occur.**
  Rating = 4
- **Definite** - **Impact will occur regardless of any prevention measures**
  Rating = 5

The <u>severity</u> rating is calculated from the *factors* given to intensity and duration. Intensity and duration factors are awarded to each impact, as described below.

The <u>Intensity</u> factor is awarded to each impact according to the following method:

- **Low intensity** - **Nature and/or manmade functions not affected and a minor impact may occur.**
  Factor 1
- **Moderate intensity** - **Environment affected but natural functions and processes can continue though often in a slightly altered manner.**
  Factor 2
- **High intensity** - **Environment affected to the extent that natural functions are altered to the extent that it will temporarily or permanently cease.**
  Factor 4

<u>Duration</u> is assessed and a *factor* awarded in accordance with the following:

- **Short term** - **≤ 1 to 5 years**
  Factor 2
- **Moderate term** - **5 – 15 years**
  Factor 3
- **Long term** - **Impact will only cease after the operational life of the activity, either because of natural process or by human intervention.**
  Factor 4
- **Permanent** - **Mitigation, either by natural process or by human intervention, will not occur in such a way or in such a time span that the impact can be considered transient.**
  Factor 5

The <u>severity</u> rating is obtained from calculating a severity factor, and comparing the severity factor to the rating in the table below, for example:

The Severity factor **Intensity factor X Duration factor**
2 X 3 = 6

e.g. A Severity factor of 6 (six) equals a Severity Rating of Moderate severity (Rating 3) as per table below:

Table 1: Severity Ratings

	FACTOR
Low Severity (Rating 2)	**Calculated values 2 to 4**
Moderate Severity (Rating 3)	**Calculated values 5 to 8**
High Severity (Rating 4)	**Calculated values 9 to 12**
Very High Severity (Rating 5)	**Calculated values 13 to 16 and mo**

Severity factors below 3 indicate no impact

A <u>Significance</u> Rating is calculated by multiplying the Severity Rating with the Probability Rating:
The significance rating should influence the development project as described below:

- **Low significance (calculated Significance Rating 4 to 6)**

  - **Positive impact and negative impacts of low significance should have no influence on the proposed development project**

- **Moderate significance (calculated Significance Rating ≥ 7 to 12)**
  - **Positive impact**
    Should indicate that the proposed project should be approved
    Negative impact:
  - **Should be mitigated or mitigation measures should be formulated before the proposed project can be approved**
- **High significance (calculated Significance Rating ≥ 13 to 18)**
  - **Positive impact:**
    Should points towards a decision for the project to be approved and should be enhanced in final design
    Negative impact:
  - **Should weigh towards a decision to terminate proposal, or mitigation should be formulated and performed to reduce significance to at least low significance rating.**
- **Very High significance (calculated Significance Rating ≥ 19 to 25 and more)**

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

1 & 5 – Proposal & Technology Alternative – Construction Phase

ENVIRONMENTAL ASPECT	ENVIRONMENTAL COMPONENT	NATURE AND DESCRIPTION OF IMPACTS (in relation to surrounding land uses)/ RISK OF THE IMPACT AND MITIGATION NOT BEING IMPLEMENTED	MITIGATION MEASURES
1. Establishment of the development, parking areas and other associated infrastructure	Topography	o The development and associated infrastructure will be established on a flat terrain and low significant impact on the topography is anticipated.	o **Please refer to the information provided below the table.**
2. Preparation of the site, including the clearance of vegetation	The existing grass layer is to be removed for the establishment of buildings and infrastructure.	o The removal of vegetation cover, such that the soil surface is exposed, may lead to increased soil erosion in certain areas. o Where the removal of surface vegetation is of a temporary nature only, the establishment of weed species is a threat. o Less natural habitat will be left with continued land development	o The topsoil layer is required to rehabilitate the vegetation in these areas; where surface vegetation has been temporarily removed it must be replaced again.
3. Excavations for the establishment of foundations	Vegetation and soil layers. The closes other land uses is 300 m away and will not be affected.	o The existing vegetation will be permanently removed to accommodate the foundations for the development. o Less natural habitat will be left with continued land development	o **Please refer to the information provided below the table.**

4. Establishment of stock pile areas	Soil and vegetation cover. The closes other land uses is 300 m away and will not be affected.	o Stock piles cause compaction of soil surfaces, which promotes the establishment of unwanted weed species. o The establishment of weeds greatly reduces the quality of the natural vegetation on site.	o **Please refer to the information provided below the table.**
5. Provisions for storm water i.e. storm water drainage.	Soil surfaces, vegetation cover and drainage patterns.	o Correct and efficient storm water drainage systems must be installed. Poorly designed storm water outlets will result in increased surface run-off volume and speed, which could lead to the creation of erosion gullies. All road surfaces generate storm water, which should be controlled by preventing the storm water from crossing the road. Storm water must be allowed to spread out gradually over a large surface area to protect the soil surface against erosion.	o **Please refer to the information provided below the table.**
6. Generation of construction waste	Soil, vegetation, aesthetic quality of the site and surface water run-off.	o Polluted surface water run-off may pollute the water resources (steams in the vicinity) that could be used by other surrounding land uses. o Construction waste that is not removed from site will also be an eye sore in the area and will promote the growth of unwanted weed species.	o **Please refer to the information provided below the table.**
7. Movement of construction vehicles on local road networks	Air quality due to dust generation + Traffic safety aspects.	o The movement of heavy vehicles (transporting building material) on tar roads and especially on busy main roads like the R573, can impact on traffic safety, due to accidental soiling of the road surface and/or speeds driven by construction vehicles. o Access points to the site may create dust which may be a problem to adjacent land owners and motorists in general.	o **Please refer to the information provided below the table.**
8. Maintenance of construction vehicles	Possible soil contamination, which in turn will affect surface water run-off.	o Soil contamination during construction vehicle maintenance is easily prevented. But in the event of such an occurrence, the impact will be of a temporary nature only, as spills can and should immediately be cleaned up. o The quality of surface water may temporarily be negatively	o **Please refer to the information provided below the table.**

		affected (steams in the vicinity) that could be used by other surrounding land uses.	
9. Noise generation by operating air compressors, excavators and other heavy machinery.	Ambient noise levels.	o Noise generation caused by the operation of construction machinery may cause social disturbances, especially close the 'residential' areas North and East of the site. o These disturbances are of a temporary nature only (during the construction phase).	o **Please refer to the information provided below the table.**
10. Construction camp establishment	Soil surfaces, vegetation cover and surface water quality.	o The establishment of construction camps will have a localized impact on the soil and vegetation cover of the site, as well as on the quality of surface water – as a result of construction camp litter, vehicle servicing, fuel storage and other such activities.	o **Please refer to the information provided below the table.**
11. Temporary fuel storage on site	Possible soil and water contamination.	o There shouldn't be any impacts as a result of this activity. However, in the event of a fuel spill the soil and water may become contaminated, which should be dealt with rapidly.	o **Please refer to the information provided below the table.**
12. Maintenance of construction vehicles	Soil, vegetation and surface water.	o In the event of on-site repairs and servicing, soil surfaces, vegetation, and run-off may be locally contaminated. Spillage of fuel through faulty bowsers is a possibility, if not controlled. It is anticipated that no fuel storage facilities will occur on the site other than temporary storage of diesel in drums.	o **Please refer to the information provided below the table.**
13. Provision of water for construction on site	Groundwater.	o None.	o None
14. Provision of water for consumption (by workers) on site during the working day	Site quality (in terms of littering).	o Bottled water will be provided to workers on site.	o **Please refer to the information provided below the table.**
15. Sanitation provision to workers during the working day	Possible contamination of subsurface soil and surface water quality.	o Possible contamination as a result of this activity will be of a localized, temporary nature.	o **Please refer to the information provided below the table.**
16. Heritage resources	No heritage or culturally significant features are visible on site.	o None	o None
17. Temporary employment	Social aspects	o There will be positive impacts in terms of social upliftment	o **Please refer to the information**

created during the construction phases of the proposed development.		and job creation within the broader region.	**provided below the table.**
18. Housing of workers during construction	Aesthetic character, soil and vegetation, surface water quality and social aspects.	o The establishment of housing for workers will have a localised impact on the soil and vegetation cover of the chosen site, as well as potentially having a negative impact on the quality of surface water – as a result of domestic waste, and sanitation facilities for example, if these are not properly addressed. o Living conditions must be adequately addressed to reduce potential impacts on human health. o Security could become an issue if not addressed.	o **Please refer to the information provided below the table.**

MANAGEMENT OF ENVIRONMENTAL IMPACTS (Mitigation measures) (in relation to surrounding land uses):

Management of impacts on vegetation cover and faunal habitats

Clearing/removal of the existing vegetation for the construction of the development will be necessary. Indigenous pristine vegetation does exist. The size of the site is small in comparison to the surrounding land portions, which consist of quarries, small retail and housing developments, thus the significance of this impact is rated as low over a larger area.

- The propagation of exotic species and weeds will need to be controlled during the construction phase, as there are many activities on site that could lead to the establishment of weeds - including compaction of the soil by heavy machinery, construction waste, stockpile areas etc.
- Weed species should be removed on a four-week basis. The whole site will not be paved (either as parking areas or access roads) and a large portion will be landscaped/maintained. It is recommended that only indigenous species be used in the landscaping process (if implemented), and that trees are incorporated into the landscaping design.
- Innovative landscaping of the site towards the end of the construction stage will contribute significantly to the visual and aesthetic attractiveness of the site and will also solve the problems associated with the removal of vegetation cover, including soil erosion, dust generation and the flourishing of weeds and/or other unwanted exotic species in the long term.
- No specific mitigation measures are deemed necessary with regards to mitigating the impact of the proposed development on the faunal component, because the proposed development area is small. Very few faunal species was detected on the site. There is also enough space for them to migrate to on this property and next door.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Management of impacts on soil (stability and erosion of disturbed surfaces)

Given the flat to hilly topography of the site, sheet and gully erosion (which is typically experienced when construction takes place during the summer rainfall months) is anticipated.

- If surface erosion DOES become prevalent during the construction phase, it should be curbed through control measures such as placing sand bags at the lowest point of water run-off areas to halt the sediment transport and erosion that will otherwise occur.
- Aspects that typically impact on soil conditions are blasting activities, excavations for the founding of foundations, establishment of stockpile areas, removal and/or clearance of vegetation, movement of construction vehicles, and maintenance of construction vehicles, construction camp establishment and sanitation provision to workers during the construction period. Therefore, the following recommendations pertaining to soil conservation practices are made:
  - Topsoil should be stockpiled separately from subsoil. The height of the stockpiles may not exceed 2.5 m and the stockpiles should not be stored for more than a one year period.
  - Topsoil must be stripped from all areas, where construction activities are going to take place, to be re-used in landscaping the site.
  - If any blasting activities occur on site, the blasted rocks and heavy rock material must be transported to an external venue. These rocks are not allowed to rest on site. If the rocks are left on site, the soil will be greatly compacted, which will promote the growth of weeds.
  - Any excess overburden material that is generated may not be dumped in a random manner. Dumping sites should be predefined, agreed upon and adhered to.
  - Any embankments created adjacent to the roads or any drainage lines must be stabilised during construction and re-habilitated afterwards.
  - Generally, surface water must be prevented from damming or creating gully erosion. This can be achieved by placing sandbags along the boundaries of steep working areas where higher intensity surface run-off may occur.
  - All runnels and erosion channels developing during the construction period or during the operational and maintenance period should be backfilled and consolidated immediately**.**
  - The movement and maintenance of construction vehicles may only take place in pre-determined and delineated areas. Only planned and formal routes for hauling of material should be used.
  - Soil contamination during construction vehicle maintenance or as a result of fuel storage on site is easily prevented, but in the event of such an accident, the spill should immediately be cleaned up by absorbing the worst of the fluid with saw dust and then disposing of the saw dust and the first bit of the soil layer.
  - Fuel storage areas should be bounded effectively and all applicable safety standards must be adhered to.
  - In terms of the stability of excavations, it is strongly recommended that **all excavations exceeding 1.5 m should have proper sidewall protection to ensure the safety of workers.**

- Seepage may result in the destabilising of the soils above the seepage and special precautions may be required.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Construction vehicle maintenance

- Construction vehicle maintenance, when necessary, should only be conducted within the boundaries of an area designated for this purpose. Such facilities should be provided with a concrete oil catch-pit. Such a pit should be cleaned thoroughly at the end of the construction period, demolished and removed from the construction site.
- In the event of spills from vehicles, the area should be cleaned immediately using a bioremediation product, such as *Petro-Clean* ^{TM}.
- The absorbent and soil must be placed in a bin and removed from the site by a certified company and disposed of as a hazardous waste at a licensed hazardous landfill site**.**
- At the end of the construction period, any contaminated soil must be removed from the site and disposed of at a licensed hazardous landfill site**.**

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Stock pile areas and other storage facilities

- All stockpile areas, if situated outside the eventual paved area, should be ripped and ploughed at the end of the construction period to loosen soil surfaces for the natural propagation of vegetation and/or to allow for landscaping of the area.
- The same applies to other temporarily disturbed areas on site, which are vulnerable to the propagation of unwanted species (weeds). It is important that the contractor implements weed control through physical and/or approved chemical eradication methods. Only registered herbicides should be used to curb this problem.
- The temporary storage of construction material and especially fuel must be carefully monitored by the site engineer to prevent the risk of accidental spillage or disposal of any such material that will contaminate soil surfaces, surface and subsurface water.
- All liquid material must, where applicable, be stored on solid concrete surfaces and must be surrounded by bunds.
- Bunding is also applicable to fuel and mechanical oil storage areas. Bunding walls should not be less than 30 cm high.
- Storage containers must be inspected regularly to prevent leaks that could contaminate the site.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Community and traffic safety during the construction period

Construction vehicles, including trucks and other heavy machinery, changes in road design and access and other related construction activities affect the safety parameters within the study area.

- Proper sign posting and traffic control measures along the routes utilised by these vehicles, and especially at the intersection of these roads, is crucial throughout the construction period; to warn motorists of any imminent potentially dangerous situations.
- It is necessary to warn motorists of slow moving vehicles to and from the site to reduce the risk of accidents. The access points especially are high risk areas for accidents. Therefore, well posted warning signs are essential.
- Children and unauthorised persons should not have access to the construction site. All workers should be properly attired, with safety hats and clearly visible, reflective clothing – such that they are easily visible to the truck and heavy machinery drivers.
- Soiling of the road surface should be prevented, as this poses a danger to motorists that could skid on the spilled soils. Because the safety of the community and construction workers is of utmost importance, it is recommended that the contractor should discuss construction times and schedules with Emergency Services, the Traffic Department and also with SAPS.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Waste management

It is crucial to implement strict and effective waste control and waste management procedures during the construction phase.

- No littering by any personnel is permissible. The site manager/contractor should conduct regular site clean-ups to keep the site litter free – as litter is not only aesthetically displeasing, but it is also harmful to the environment.
- All domestic solid waste produced must be disposed of in waste bins situated on site. The bins should be emptied into a covered skip (for storage) on a regular basis, until its collection and removal to a municipal waste disposal site (preferably on a weekly or bi-weekly basis).
- No liquid waste material should be disposed of on or near the site during construction, or in any non-designated areas. A firm arrangement must be made to place chemical toilets on the construction site (within the construction camp to be erected).
- A sufficient number of chemical toilets need to be provided; in the range of 1 per every 8 workers. These toilets must be well maintained and inspected on a daily basis to ensure that they are clean and functioning properly. The toilets must be within walking distance from the work areas. No person is allowed to use any area, other than the chemical toilets provided, as a toilet.
- No washing of people and/or goods should take place on cleared surfaces, as this water should not be allowed to drain into any adjacent storm water drainage systems.
- In the event of accidental spillage of liquid substances, like paints and resins, it is important to implement the correct emergency procedures and cleaning-up operations. Pollution of surfaces

should be limited at all costs.

- The generation of construction waste occurs at every site under development and construction. Due to the costs involved in the disposal of this material at municipal or other licensed waste sites, the contractor or sub-contractor may be tempted to illegally dump waste at concealed locations to save on costs. Therefore, strict control is required from the main contractor on site to control this issue. Proof of disposal of waste material at a registered waste disposal site must be shown after off-loading of each waste load, which should then be logged or registered for control purposes.
- Control measures in terms of the National Building Regulations and standard requirements laid down by the local authority, with regards to spillage and waste disposal, must strictly be adhered to.
- General waste disposal management involves the collection of construction waste at a central collection facility, which should be pre-arranged and implemented. This should include making points available for solid as well as liquid waste – including mechanical fluids disposed of during vehicle maintenance.
- The site should be designed in such a manner that hazardous wastes are not located in close proximity to the permitted fire making area. These areas shall be predetermined and located in areas that are already disturbed. These areas shall not be within 100 m from any 1:100 year flood line or drainage lines (such as the drainage line). This area should be on a concrete base to avoid any possible seepage into the soil.
- All hazardous waste must be stored in sealed and suitably marked containers for removal to a hazardous waste landfill site by the contractor on a b-weekly basis. Hazardous waste could include used oils and fluorescent light tubes, as examples. The contractor should refer to the relevant Department of Water Affairs (DWA) guidelines for the classification of hazardous waste.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Managements of impacts on air quality

Construction activities such as vegetation clearance, blasting activities, excavating soil, topsoil removal, trenching and storage as well as the movement of construction vehicles GENERATE DUST. The dust will influence the air quality in the immediate vicinity of the construction activities. If the air quality exceeds acceptable standards, residents as well as construction workers could experience health problems. Therefore, the following mitigation measures should be implemented:

- The emissions from run down, old machinery will greatly pollute the air. Therefore, well serviced machines and heavy vehicles that are maintained in a good working order should be used.
- Regular wetting of exposed soil surfaces along routes that will be utilised by heavy vehicles is required at least twice a day to minimise the amount of dust generated by vehicles – this is especially important at the access points to the site.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Noise generations

The impact of the on the proposed development ambient noise levels during the construction period is rated to have a moderately significant impact on the social environment of the community. Therefore, noise mitigation measures are required in order to keep the noise generated by construction activities as low as possible – ESPECIALLY given the site's close proximity to other farm steads. This can be achieved by:

- Ensuring that only well-oiled, well maintained machinery is used, as such machinery will produce less noise than poorly serviced machinery. For example, poor maintenance of exhaust systems will produce unnecessary noise pollution.
- Furthermore, working hours for construction should be limited to between 07h00 and 17h00 on week days, as construction outside of these time frames will be a nuisance to adjacent dwellers (in the adjacent residential area). Construction times should be limited to between 08h00 and 12h00 on Saturdays and no construction activities should be allowed on Sundays.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

Construction camp establishment and decommissioning

- Construction camp establishment can have a significant impact on the environment in terms of water and soil contamination – due to aspects like the storage and handling of hazardous substances (including fuels and lubricants); the storage, movement and possible maintenance of construction vehicles and other heavy machinery; domestic waste production and noise. Therefore, the placement and management of activities within construction camps is important.
- The construction camp should not be established within close proximity to natural drainage lines or water bodies situated within the site. The construction camp should be fenced (with neat, well-maintained fencing that does not cause any unnecessary visual disturbances) to control construction and worker activities within a clearly delineated/designated area.
- It is recommended that workers should NOT be allowed to stay on site overnight during the construction period – in order to limit noise generated and potential safety/crime concerns.
- All temporary erected structures, including the construction camp(s) and or construction office(s) must be demolished and removed after completion of the construction phase. This includes all fencing, piping, drains and sumps as well as tanks or other containers that were utilised during the construction period.

Implementation responsibility: The applicant & main contractor will be responsible for the implementation of the above measures as an on-going process during construction phase.

ASSESSMENT OF THE SIGNIFICANCE OF ALL IMPACTS (Construction Phase):

ENVIRONMENTAL AND OTHER COMPONENTS TO BE AFFECTED	Probability value	Intensity value	Duration value	Severity value	Significance rating
1. Impact on the vegetation component of the site	4	2	3	3	12: Moderate (negative)
2. Impact on soil (surface stability)	3	2	2	2	6: Low (negative)
3. Impact on soil (topsoil layer - disturbance and compaction)	3	2	2	2	6: Low (negative)
4. Impact on subsurface soil quality	2	2	2	2	4: Low (negative)
5. Impact on topography	2	2	2	2	4: Low (negative)
6. Impact on surface drainage and existing water bodies	3	2	2	2	6: Low (negative)
7. Impact on surface water run-off quality	3	2	2	2	6: Low (negative)
8. Impact on groundwater resources	3	2	2	2	6: Low (negative)
9. Impact on air quality	4	2	2	2	8: Moderate (negative)
10. Impact on ambient noise levels	4	2	2	2	8: Moderate (negative)
11. Impact on the social environment of the adjacent community	4	2	2	2	8: Moderate (negative)
12. Impact on the social environment of the development	4	2	2	2	8: Moderate (positive)
13. Impact on traffic safety aspects	4	2	2	2	8: Moderate (negative)
14. Impact on land use & agricultural potential	3	2	1	2	6: Low (negative)
15. Impact on visual and aesthetic quality	3	2	2	2	6: Low (negative)
16. Impact on local economy (job creation)	4	2	2	2	8: Moderate (positive)

ASSESSMENT OF THE SIGNIFICANCE OF ALL IMPACTS <u>AFTER MITIGATION</u>:

ENVIRONMENTAL AND OTHER COMPONENTS TO BE AFFECTED	Probability value	Intensity value	Duration value	Severity value	Significance rating
1. Impact on the vegetation component of the site	3	2	2	2	6: Low (negative)
2. Impact on soil (surface stability)	3	2	2	2	6: Low (negative)
3. Impact on soil (topsoil layer - disturbance and compaction)	3	2	2	2	6: Low (negative)
4. Impact on subsurface soil quality	2	2	2	2	4: Low (negative)
5. Impact on topography	2	2	2	2	4: Low (negative)
6. Impact on surface drainage and existing water bodies	3	2	2	2	6: Low (negative)
7. Impact on surface water run-off quality	3	2	2	2	6: Low (negative)
8. Impact on groundwater resources	3	2	2	2	6: Low (negative)

9. Impact on air quality	3	2	2	2	6: Low (negative)
10. Impact on ambient noise levels	3	2	2	2	6: Low (negative)
11. Impact on the social environment of the adjacent community	3	2	2	2	6: Low (negative)
12. Impact on the social environment of the piggery	3	2	2	2	6: Low (negative)
13. Impact on traffic safety aspects	3	2	2	2	6: Low (negative)
14. Impact on land use & agricultural potential	3	2	1	2	6: Low (negative)
15. Impact on visual and aesthetic quality	3	2	2	2	6: Low (negative)
16. Impact on local economy (job creation)	3	2	2	2	6: Low (positive)

1 & 5 - Proposal & Technology Alternative - Operational Phase (in relation to surrounding land uses)			
ENVIRONMENTAL / SOCIAL ASPECT	**ENVIRONMENTAL / SOCIAL COMPONENT**	**NATURE AND DESCRIPTION OF IMPACTS / RISK OF THE IMPACT AND MITIGATION NOT BEING IMPLEMENTED**	**MITIGATION MEASURES**
1. Dust generated from the development	Surrounding public and land uses	Dust from vehicles entering and exiting the site.	Regular wetting of exposed soil surfaces along routes that will be utilised by vehicles is required at least twice a day to minimise the amount of dust generated by vehicles – this is especially important at the two access points to the site.
2. Noise from the development.	Ambient noise levels	Possible load music, singing and hooting from the development.	No loud music is permitted. Hooting must be prohibited.
3. Ground / Surface water contamination	Health, soil and water	Possible contamination of ground / surface water, from faulty or un-serviced sewage conservancy tanks and leak prevention methods from coffins, further afield that could lead to habitat destruction and health issues for animals and humans.	Bi-Annual hydraulic testing of boreholes will help detect and prevent the possible spread of contamination beyond the border of the memorial. This will also address the monitoring of sustainable yields of the on-site boreholes. According to the geohydrologist: Pathogens, organic leachate from decomposing bodies, and organic embalming fluids (e.g.

			formaldehyde) will very likely attenuate/breakdown naturally in the unsaturated zone (clay soil) prior to reaching the groundwater table. The depth of groundwater is in the order of 20m below surface, which represents enough residence time for natural attenuation in the unsaturated zone. The stormwater management plan addresses the surface water flow across the proposed site in order to prevent any erosion from taking place and possible contamination 'downstream'.
4. Maintenance of storm water management systems	Soil surfaces, drainage patterns and surface water.	Erosion could occur in the storm water outlets are not implemented correctly.	Maintenance of storm water outlets is required to ensure that they don't get blocked (i.e. no longer fulfil their function) or result in erosion. The necessary / correct storm water outlet structure must be implemented to prevent erosion from occurring.
5. General structure maintenance	Visual quality, also surface water quality and vegetation cover.	The design and nature of the development will determine the impact of the proposed development on the visual quality of the study area. Maintenance of the development as a whole will prevent a further negative impact on the visual quality of the study area. The disposal of rubble (both during construction and maintenance) causes impacts on the natural environment (including faunal ecology, surface water and vegetation) if disposed of illegally. Compaction of soil surfaces and the propagation of weeds are typical impacts.	Maintenance of all structures is critical in upholding or improving on the visual impact on the area. Weed / exotic vegetation control must be implemented regularly to protect the natural environment.

ASSESSMENT OF THE SIGNIFICANCE OF ALL IMPACTS (Operational Phase):

ENVIRONMENTAL AND OTHER	Probability	Intensity	Duration	Severity	Significance rating

COMPONENTS TO BE AFFECTED (during mostly the operational phase)	value	value	value	value	
1. Dust generated from the development	4	2	2	2	8: Moderate (negative)
2. Noise from the development.	3	4	4	5	15: High (negative)
3. Ground / Surface water contamination	4	2	2	2	8: Moderate (negative)
4. Maintenance of storm water management systems	4	2	2	2	8: Moderate (negative)
5. General structure maintenance	4	2	2	2	8: Moderate (negative)

ASSESSMENT OF THE SIGNIFICANCE OF ALL IMPACTS AFTER MITIGATION (Operational Phase):

ENVIRONMENTAL AND OTHER COMPONENTS TO BE AFFECTED	Probability value	Intensity value	Duration value	Severity value	Significance rating
1. Dust generated from the development	3	2	2	2	6: Low (negative)
2. Noise from the development.	3	2	2	2	6: Low (negative)
3. Ground / Surface water contamination	3	2	2	2	6: Low (negative)
4. Maintenance of storm water management systems	3	2	2	2	6: Low (negative)
5. General structure maintenance	3	2	2	2	6: Low (negative)

3 – ACTIVITY ALTERNATIVE (IT WILL BE THE SAME FOR A RESIDENTIAL TOWNSHIP)

Potential impacts:	Significance rating of impacts:	Significance rating of impacts after mitigation:
Impacts on vegetation cover and faunal habitats: Clearing/removal of the existing vegetation for the construction of the Residential township was necessary. **Proposed Mitigation:** o Innovative landscaping of the site towards the end of the construction stage will contribute significantly to the visual & aesthetic attractiveness of the site and will also solve the problems associated with the removal of vegetation cover, including soil erosion, dust generation and the flourishing of weeds and/or other unwanted exotic species in the long term. o Mitigation measures are deemed necessary with regards to mitigating the impact on the faunal component, on the site.	**Low - Negative**	**Low - Negative**
Impacts on soil (stability and erosion of disturbed surfaces): Aspects that typically impact on soil conditions are blasting activities, excavations for the founding of foundations, establishment of stockpile areas, removal and/or clearance of vegetation, movement of construction vehicles, maintenance of construction vehicles, construction camp establishment and sanitation provision to workers during the construction period.	**Moderate - Negative**	**Low - Negative**

During cement mixing, any accidental spills will impact on the soil as well as vegetation (and consequently also surface- and groundwater resources). **Proposed mitigation:** The following recommendations pertaining to soil conservation practices are made: o Topsoil should be stockpiled separately from subsoil. The height of the stockpiles may not exceed 2.5 m and the stockpiles should not be stored for more than a one year period. o Topsoil must be stripped from all areas, where construction activities are going to take place, to be re-used in landscaping the site. o If any blasting activities occur on site, the blasted rocks and heavy rock material must be transported to an external venue. These rocks are not allowed to rest on site or be dumped adjacent to the site. If the rocks are left on site or on adjacent properties, the soil will be greatly compacted, which will promote the growth of weeds. o Any excess overburden material that is generated may not be dumped in a random manner. Dumping sites should be predefined, agreed upon and adhered to. o Any embankments created adjacent to the roads or any drainage lines must be stabilised during construction and re-habilitated afterwards. o Generally, surface water must be prevented from damming or creating gully erosion. This can be achieved by placing sandbags along the boundaries of steep working areas where higher intensity surface run-off may occur. o All runnels and erosion channels developing during the construction period or during the operational and maintenance period should be backfilled and consolidated immediately**.** o The movement and maintenance of construction vehicles may only take place in pre-determined and delineated areas. Only planned and formal routes for hauling of material should be used. o Soil contamination during construction vehicle maintenance or as a result of fuel storage on site is easily prevented, but in the event of such an accident, the spill should immediately be cleaned up by absorbing the worst of the fluid with saw dust and then disposing of the saw dust and the first bit of the soil layer. o Fuel storage areas should be bounded effectively and all applicable safety standards must be adhered to.		
<u>Potential for surface water pollution:</u> It is possible that oil and fuel leaks from construction vehicles could pollute the surface water, and there is a prominent drainage course running over the site. Activities such as clearing and grubbing, and topsoil removal will loosen the soils. These loose soils as well as construction material such as fine aggregate could lead to sedimentation of the water bodies through storm water run-	**Moderate - Negative**	**Low - Negative**

off. **Proposed mitigation:** o Any embankments formed during site levelling must be stabilized during construction and rehabilitated afterwards. Storage areas of topsoil and construction aggregates must be planned to ensure that storm water run-off does not result in sediment deposition in drainage ways.		
Potential for groundwater pollution: Sewerage pollution (as a result of domestic sewerage produced during the construction phase from construction workers) may impact on the groundwater. Other domestic waste produced by construction workers also has the ability to contaminate both surface and groundwater. **Proposed mitigation:** o Oils, fuels, greases and other hazardous substances shall be stored in a designated area. Fuel tanks will be bunded above ground level. Oils, greases and other hazardous substances will be stored on a lined concrete or hardstand floor area. o All fuel storage areas shall be well fenced to prevent access by non-authorized persons. Restricted access must be given to these areas with a register that identifies the usage and the person responsible for the supply and/or usage of the substances. o The mixing of any solvents, asphalt, sealants, adhesives, paints, chemicals or other noxious materials shall only be undertaken in designated areas on concrete aprons that have spillage control channels and separate storage areas. The mixing of materials will not be permitted in the general areas of the site. All surplus or waste materials are to be removed from the site. All these operations shall only be allowed on site under strict observations of the manufacturers' instructions. o The use of Chemical toilets for use by the labour force is essential to avoid pollution and attraction of vermin and flies (which could become a nuisance or a health hazard).	**Moderate - Negative**	**Low - Negative**
Waste generation: Disposal of waste on the site will have an impact on the whole surrounding area. This impact will be on the physical, biological and social environment. **Proposed mitigation:** o It is crucial to implement strict and effective waste control and waste management procedures during the construction phase. o No littering by any personnel is permissible. The site manager/contractor should conduct regular site clean-ups to keep the site litter free – as litter is not only	**Moderate - Negative**	**Low - Negative**

aesthetically displeasing, but it is also harmful to the environment. o All domestic solid waste produced must be disposed of in waste bins situated on site. The bins should be emptied into a covered skip (for storage) on a regular basis, until its collection and removal to a municipal waste disposal site (preferably on a weekly or bi-weekly basis). o Control measures in terms of the National Building Regulations and standard requirements laid down by the local authority, with regards to spillage and waste disposal, must strictly be adhered to. o General waste disposal management involves the collection of construction waste at a central collection facility, which should be pre-arranged and implemented. This should include making points available for solid as well as liquid waste – including mechanical fluids disposed of during vehicle maintenance.		
Impacts due to fires: Runaway fires may cause serious damage to areas surrounding the site. Fires may accidentally be started by the construction activities or by the contractor's yard. **Proposed mitigation:** o No fires should be allowed on construction camp or on site.	**Moderate - Negative**	**Low - Negative**
Noise pollution: Noise is generated by construction activities such as blasting, vehicle movement and other activities. Excessive noise could have an impact on the neighbouring area, even though it's small holdings with much space to the nearest neighbour. This impact will be of a temporary nature only. **Proposed mitigation:** o Ensure that only well-oiled, well maintained machinery is used, as such machinery will produce less noise than poorly serviced machinery. For example, poor maintenance of exhaust systems will produce unnecessary noise pollution. o Furthermore, working hours for construction should be limited to between 07h00 and 17h00 on week days, as construction outside of these time frames will be a nuisance to adjacent dwellers (even the site has a very rural setting and the nearest residential neighbour is far away.	**Low - Negative**	**Low - Negative**
Visual impact: Construction waste and litter from construction workers could be a source of visual pollution, as could unkempt construction camps (as mentioned). **Proposed Mitigation:** Layout and landscaping o Replace vegetation where possible after excavation. o Plant indigenous vegetation (grasses of the area and a	**Low - Negative**	**Low - Negative**

few indigenous trees) alongside access roads and excavation sites to buffer the area from the adjacent properties. Erosion control o The absolute minimum amount of vegetation and topsoil should be removed from excavation area and access route areas. Ensure that all existing natural vegetation is retained wherever possible. o Retain vegetation along the edges of the excavation development, to reduce erosion. o Retain as much vegetation possible around the excavation site to reduce soil erosion due to water run-off towards the site. Lighting o The potential impact of lighting within the excavation area on adjacent properties should be minimized by directing lighting downwards and away from adjacent properties. o The waste on the site should be removed before and after construction.		
Cultural / Historical elements on site: No features of heritage significance were identified on site. A specialists recommendations would be as follows: o Should any hidden human remains (unlikely) be disturbed, exposed or uncovered during site clearing and excavations, these should immediately be reported to an archaeologist. Burial remains should not be disturbed or removed until inspected by an archaeologist. o Site clearing and excavation activities must be monitored for the occurrence of any hidden archaeological material and similar chance finds (such as historic middens and foundations) and if any are exposed, this should be reported to an archaeologist so that an investigation and evaluation of the finds can be made.	**Low - Negative**	**Low - Negative**
Air pollution: The negative air pollution impacts caused by the development during construction will include vehicle exhaust emissions and dust. Construction activities such as clearing and grubbing, topsoil removal, trenching and storage as well as the movement of construction vehicles are all activities that are likely to generate dust. The dust will influence the air quality in the immediate vicinity of the construction activities. One again, this is only a temporary impact. **Proposed mitigation:** o The emissions from run down, old machinery will greatly pollute the air. Therefore, well serviced machinery and heavy vehicles that are maintained in a good working order should be used.	**Low - Negative**	**Low - Negative**

o Regular wetting of exposed soil surfaces along routes that will be utilized by heavy vehicles is required at least twice a day to minimize the amount of dust generated by vehicles – this is especially important at the access point to the site.		
Traffic impact: The traffic impact of the proposed development would be created by the movement of construction vehicles and other vehicles to and from the development site. **Proposed mitigation:** o Proper sign posting and traffic control measures along the routes utilized by construction vehicles, is crucial throughout the construction period; to warn motorists of the presence of these vehicles and potentially dangerous situations. o It is necessary to warn motorists of slow moving vehicles to and from the site to reduce the risk of accidents. The access points especially are high risk.	**Moderate - Negative**	**Low - Negative**
Employment opportunities: A significant impact is the short-term wealth expectation created by any development.	**Moderate -Positive**	**Moderate - Positive**

NO GO ALTERNATIVE – THIS WILL BE THE SAME AS THE ALTERNATIVE ACTIVITY OF A RESIDENTIAL TOWNSHIP.

Potential impacts:	Significance rating of impacts:
Impacts on vegetation cover and faunal habitats: o Status quo.	**Low - Negative**
Impacts on soil (stability and erosion of disturbed surfaces): o Status quo.	**Low - Negative**
Potential for surface water pollution: o Status quo.	**Low - Negative**
Potential for groundwater pollution: o Status quo.	**Low - Negative**
Waste generation: o Status quo.	**Low - Negative**

Impacts due to fires: o Status quo.	**Low - Negative**
Noise pollution: o Status quo.	**Low - Negative**
Visual impact: o Status quo.	**Low - Negative**
Cultural / Historical elements on site: o Status quo.	**Low - Negative**
Air pollution: o Status quo.	**Low - Negative**
Traffic impact: o Status quo.	**Low - Negative**
Employment opportunities: Thus status quo will continue. No jobs will be created.	**Low - Negative**

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

The following will be included in the draft and if not in the final Basic Assessment report for a decision:

- Heritage Impact Assessment (HIA)
- Vegetation Study
- SWMP
- Geo-hydro
- Geo-technical
- Traffic Impact Assessment
- Townplanning Memorandum

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

There was no knowledge gaps identified due to the fact that all relevant parties (I & APs and Specialists) were consulted and valuable information was received and recommendations made.

No assumptions were made also because the necessary studies were conducted and the information was made available to relevant stakeholders and these studies were incorporated into the planning and design of this development.

Uncertainties will always be part of any development when it comes to the actual degree of impact it will have on the immediate environment, because no project is identical. Any and real results can only be recorded after the development has started and finished.

3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts. List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

1 - Proposal & 3 - Activity Alternative

Potential impacts:	**Significance rating of impacts:**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**
Visual impact. The site may become a derelict "eye sore" if the remaining structures are allowed to physically deteriorate.	**Medium**	Use of land for alternative land use. It is advisable to determine beforehand what would be done in future with the land on which the development is established for this application. If the development operations ends and no other land-use / development are planned for this area, then all structure will have to be removed form site. This will have to be done by the owner of the land together with a licensed contractor to dispose of all waste to licensed landfill sites. The site will have to be rehabilitated by ripping the compacted areas and where possible bring in topsoil from the area to help establish natural vegetation on-site again. Weed control need to be done on a monthly basis until the natural vegetation has re-established. Proper fencing should be in place to prevent squatters settling on the vacant land.	**Low**
Squatters may use the site and its structures as a place to dwell. This poses a potential environmental threat in terms of uncontrolled domestic waste and sewage disposal on site.	**Medium**		**Low**
If the development is transferred from the current owner to a new owner then the new owner must also comply with all the requirements set out in the EMPr and Environmental Authorisation for this development. The new owner will also have to maintain the same or higher levels of operations set out by the previous owner.			

The following will be included in the draft and if not in the final Basic Assessment report for a decision:

- Heritage Impact Assessment (HIA)
- Vegetation Study
- SWMP
- Geo-hydro
- Geo-technical
- Traffic Impact Assessment
- Townplanning Memorandum

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

N/A

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

According to the definition in relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area. No high significantly potential cumulative impacts are identified.

Cumulative impact on other physical components such as natural vegetation (none existing) and animal life, air quality and visual impact is regarded at this stage as of high significance, due to the out natural and spacious nature of the landscape.

Possible cumulative impacts foreseen could be the loss of agricultural land, although this area is not of high potential. All impacts from the construction phase of the development should be continually mitigated. Thus potentially no high significant cumulative impacts are predicted.

The possible cumulative impacts from the nearby developments in the local area will be assessed in the table below.

ENVIRONMENTAL ASPECT AND PROJECT STAGE C: construction stage O: operational phase	**ENVIRONMENTAL COMPONENT THAT MAY BE AFFECTED**	**NATURE AND DESCRIPTION OF THE POTENTIAL CUMULATIVE IMPACT IN ASSOCIATION WITH THE SURROUNDING AREA**
Vegetation clearance for the footprint/foundation of the development (C).	Soil layers, soil surface.	Seen at a wider scale the additional developments are not physically connected, but the removal of vegetation cover, such that the soil surface is exposed, may lead to increased soil erosion in the area. Where the removal of agricultural land is of a temporary nature it may add to a bigger combined loss of agricultural land in local area.
Excavations for the foundations of the development, as listed above (C).	Soil layers and faunal habitat.	The existing vegetation will be permanently removed to accommodate the foundations of the necessary structures. Very little faunal habitat will also be affected in combination with the surrounding developments. Soil layers affected will be a localised impact and not cumulative.
Stockpiling of excavated material (C)	Soil and vegetation cover.	Stockpiles cause compaction of the soil, which promotes the establishment of weed species. This impact is of a temporary nature and not cumulative.
Stockpiling building materials (C)	Soil and vegetation cover.	Stockpiles will need to be established for the storage of aggregate, bricks and cement, etc. As mentioned, stockpiles cause compaction of the soil surface, which leads to the growth of unwanted weed species. This impact is of a temporary nature and not cumulative.
Provisions for storm water i.e. storm water drainage	Soil surfaces, vegetation cover and	Correct and efficient storm water drainage systems must be installed.

ENVIRONMENTAL ASPECT AND PROJECT STAGE C: construction stage O: operational phase	ENVIRONMENTAL COMPONENT THAT MAY BE AFFECTED	NATURE AND DESCRIPTION OF THE POTENTIAL CUMULATIVE IMPACT IN ASSOCIATION WITH THE SURROUNDING AREA
(C)	drainage patterns.	Poorly designed storm water outlets will result in increased surface run-off volume and speed, which could lead to the creation of erosion gullies. All road and hard surfaces generate storm water, which should be controlled by preventing the storm water from crossing the roads. Storm water must be allowed to spread out gradually over a large surface area to protect the soil surface against erosion. The surrounding developments may contribute to more erosion due to more cleared and open surfaces found at these developments.
Generation of construction waste (C)	Soil, vegetation, aesthetic quality of the site and surface water run-off, water and ground water resources.	Waste, such as building rubble and empty cement bags can be a greater negative visual impact, with the additional construction waste of the staff courters, if not collected and disposed of correctly. Further to littering the site and adjacent areas, poor control and illegal dumping of construction waste can pollute surface water run-off, as well as lead to the promulgation of weed species.
General structure maintenance (O)	Visual quality, also surface water quality and vegetation cover.	The design and nature of the development will determine the impact of the proposed development on the visual quality of the study area. Maintenance of the development as a whole will prevent a further negative impact on the visual quality of the study area. The disposal of construction rubble (both during construction and maintenance of the development and staff courters) causes impacts on the natural environment (including faunal ecology, surface water and vegetation) if disposed of illegally. Compaction of soil surfaces and the propagation of weeds are typical impacts, but temporary.
Road maintenance (O)	Vegetation and soil surface conditions.	Poorly maintained access road cause abnormal soil erosion. Therefore, road maintenance is essential to ensure an effective and usable road to the development. Erosion combined with other erosion site in the areas will create a greater loss of topsoil.
Collection and disposal of solid domestic waste (C)	Aesthetic quality, surface water run-off, subsurface and groundwater quality,	Poor waste collection and handling on all the developments in and around the proposed development will pollute the environment (affecting fauna,

ENVIRONMENTAL ASPECT AND PROJECT STAGE C: construction stage O: operational phase	ENVIRONMENTAL COMPONENT THAT MAY BE AFFECTED	NATURE AND DESCRIPTION OF THE POTENTIAL CUMULATIVE IMPACT IN ASSOCIATION WITH THE SURROUNDING AREA
	vegetation and fauna.	groundwater, surface water and aesthetic environment). No illegal dumping of domestic waste will be tolerated. Untidy collection points and windblown refuse can cause human / animal conflicts, as foul odours from such areas will attract wild animals and cause other problems (pests / diseases), as well as water pollution.
Collection and disposal of construction waste (C)	Aesthetic quality, subsurface and ground water quality, vegetation and fauna.	No construction waste may be illegally dumped into the surrounding areas, as the effects of illegal dumping on the environment are devastating. Poor waste collection and handling on all the developments in and around the proposed development will have a negative impact on several environmental aspects. A waste collection agreement between the applicant and the local authority will be essential.
Long term employment opportunities and wealth to be generated by the proposed development (O)	Social aspects	There will be a positive impact in terms of social upliftment and job creation within the broader region.
Transportation of workers to and from the development site (C)	Air quality, soil surface and social aspects (including traffic and worker safety).	Poorly maintained vehicles will have a negative impact on air quality in terms of dust and emission. The residents and tourists moving through the area will also add to the negative impact on air quality.
Construction camp establishment (c)	Aesthetic impacts, social aspects, subsurface and groundwater quality, generation of domestic waste, vegetation removal, soil surface compaction and faunal impacts.	The generation of domestic waste, as well as the provision of sewage facilities, within the construction camp could potential impact on the aesthetics of the site as well as the quality of subsurface and groundwater if not properly managed and implemented. Soil surfaces would become compacted as a result of activities within the camp. These impacts will also add to the negative impact other close by developments has on the local area, but only during the construction phase.
Movement of construction vehicles on site (C)	Air quality, soil.	Movement will cause limited or localised disturbances and temporary soil compaction, which promotes the establishment of weed species. Dust will be generated by vehicular movements on site. The tipper trucks from the nearby quarry will also add to the negative impact on air quality, but only during the construction phase.

ENVIRONMENTAL ASPECT AND PROJECT STAGE C: construction stage O: operational phase	ENVIRONMENTAL COMPONENT THAT MAY BE AFFECTED	NATURE AND DESCRIPTION OF THE POTENTIAL CUMULATIVE IMPACT IN ASSOCIATION WITH THE SURROUNDING AREA
Traffic safety on the main road (C and O)	Social aspects.	The access point to the site is via the R573; therefore motorists using the main road may be negatively impacted on by slow moving construction vehicles. The tipper trucks from the nearby quarry will also add to traffic impact, but only during the construction phase.
Noise generation by operating air compressors, excavators and other heavy machinery. Noise is also generated by the construction workers (C)	Impacts on faunal species and surrounding land owners.	Excessive noise levels on site may negatively impact upon the behaviour and movements of site fauna. Surrounding land owners may also potentially be negatively impacted upon by excessive noise levels on site during construction. The tipper trucks and excavators from the nearby quarry will also add to the noise impact, but only during the construction phase.

5. COMPARATIVE ASSESSMENT BETWEEN THE PROPOSED DEVELOPMENT AND A RESIDENTIAL TOWNSHIP

Environmental Aspects	Proposed Development	Residential Township
Geology	No Impact.	No impact.
Topography	Low impact.	Low impact.
Soil, Land Capability and Land Use	Soil compaction. Possible soil erosion due to removed vegetation. Surface disturbance and topsoil removal.	Soil compaction to a greater extent. Possible soil erosion due to removed vegetation to a greater extent. Surface disturbance and topsoil removal
Flora	Stripping of surface vegetation during construction.	Stripping of surface vegetation during construction to a greater extent.
Fauna	Removal of surface vegetation thereby depleting food sources. Human presence resulting in emigration of animals. The disturbances of the vegetation cover and natural habitat will have a limited impact on the wildlife. However, it should be viewed against the background of the disturbances by human movement and activities through the area.	Removal of surface vegetation thereby depleting food sources to a greater extent. Human presence resulting in emigration of animals. The disturbances of the vegetation cover and natural habitat will have a limited impact on the wildlife. However, it should be viewed against the background of the disturbances by human movement and activities through the area.
Surface Water	Impacts on the streams and wetlands could be caused by the construction activities.	Impacts on the streams and wetlands could be caused by the construction activities to a

Environmental Aspects	Proposed Development	Residential Township
	Possible pollution of surface water if proper effluent management is not implemented.	greater extent. Possible pollution of surface water if proper effluent management is not implemented.
Ground Water	Potential environmental impact predicted. Temporary toilets (chemical) left unmanaged can leak raw sewage and effluent into the soil, surface and even ground water sources, during the construction phase. Possible pollution of ground water if proper effluent management is not implemented.	Potential environmental impact predicted. Temporary toilets (chemical) left unmanaged can leak raw sewage and effluent into the soil, surface and even ground water sources, during the construction phase. Possible pollution of ground water if proper effluent management is not implemented.
Air Quality	Low potential environmental impact during operational phase. This is due to the new methods and technology implemented in handling effluent. During the construction phase; dust could cause problems for nearby human settlements. During the operational phase the air quality will be the same as it currently is.	Low potential environmental impact during operational phase. This is due to the new methods and technology implemented in handling effluent. During the construction phase; dust could cause problems for nearby human settlements. During the operational phase the air quality will be the same as it currently is.
Noise	Moderate potential environmental impact. Noise from the development activities will be an inconvenience to a certain extent for some existing closer by properties adjacent to the site.	High potential environmental impact. Noise from the Residential township will be an inconvenience for some existing closer by properties adjacent to the site.
Visual	No significant impact. Waste, such as building rubble and empty cement bags can be a negative visual impact if not collected and disposed of correctly.	Moderate significant impact. Waste, such as building rubble and empty cement bags can be a negative visual impact if not collected and disposed of correctly.
Sensitive Landscapes	Low possible significant impact. Possible pollution of surface water (steam and wetland) if proper effluent management is not implemented.	Moderate significant impact. Possible pollution of surface water (steam and wetland) if proper effluent management is not implemented.
Sites of Archaeological and Cultural Interest	No significant impact.	No significant impact
Socio-economic	Positive impact on the regional socio-economic structure through its support to the	Positive impact on the regional socio-economic structure through its support to the

Environmental Aspects	Proposed Development	Residential Township
	community, like: - Job opportunities during the construction phase. - Local economic boost.	community, like: - Job opportunities during the construction phase. - Local economic boost.
Interested and Affected Parties	Main concerns are: • Noise from the development; • Privacy; • Safety; • Maintenance of Access road; • Reduction in water quantity and quality could close nearby businesses; • Relevant specialist studies must be conducted.	Most Likely the same concerns as for the proposed development.
Cumulative	The cumulative impact of the development on the social environment is positive & negative. • Possibility of more noise and pollution. • Stimulation of local economy. Cumulative impact on other physical components such as natural vegetation and animal life, air quality and visual impact is regarded as moderate significance.	The cumulative impact of the development on the social environment is positive & negative. • Possibility of more noise and pollution. • Stimulation of local economy. Cumulative impact on other physical components such as natural vegetation and animal life, air quality and visual impact is regarded as moderate to high significance.

COMPARATIVE ASSESSMENT BETWEEN ESKOM POWER AND RENEWABLE ENERGY

Environmental Aspects	Proposed Development –Eskom power	Development – Renewable Energy
Geology	No Impact.	No impact.
Topography	No impact.	No impact.
Soil, Land Capability and Land Use	Soil compaction for power storage structures. Possible soil erosion due to removed vegetation. Surface disturbance and topsoil removal.	Soil compaction for power storage structures. Possible soil erosion due to removed vegetation. Surface disturbance and topsoil removal.
Flora	Stripping of surface vegetation during construction	Stripping of surface vegetation during construction.
Fauna	Removal of surface vegetation thereby depleting food sources. The disturbances of the vegetation cover and natural habitat will have a limited impact on the wildlife. However, it should be viewed against the background of the	Removal of surface vegetation thereby depleting food sources. The disturbances of the vegetation cover and natural habitat will have a limited impact on the wildlife. However, it should be viewed against the background of the

Environmental Aspects	Proposed Development –Eskom power	Development – Renewable Energy
	disturbances by human movement and activities through the area.	disturbances by human movement and activities through the area.
Surface Water	No impact.	No impact.
Ground Water	No impact.	No impact.
Air Quality	No impact.	No impact.
Noise	No impact.	No impact.
Visual	No significant impact.	No significant impact.
Sensitive Landscapes	No impact.	No impact.
Sites of Archaeological and Cultural Interest	No significant impact.	No significant impact.
Socio-economic	No impact.	Positive impact on the regional socio-economic structure through its support to the community, like: ➢ Job opportunities during the construction phase.
Interested and Affected Parties	No impact.	No impact.
Cumulative	Additional strain put on the power grid.	Positive impact. Will take pressure of the power grid.

6. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Proposal

The proposed development will result in predominantly low negative environmental impacts if the appropriate mitigation measures are put into place for the duration of the proposed activities on site.

Impacts with the highest negative significance will occur during the construction phase of the proposed development. These impacts are however of a temporary nature.

Provided that the impact mitigation measures in the Environmental Management Program as summarised in this Basic Assessment Report, are implemented, the mitigation of these and other identified impacts will be adequate and should not pose any environmental flaws that could prevent the authorisation of the proposed development.

Specialist information that will assist GDARD in making a decision are as follows:

- **Heritage Impact Assessment (HIA)**
- **Vegetation Study**
- **SWMP**
- **Geo-hydro**
- **Geo-technical**
- **Traffic Impact Assessment**
- **Townplanning Memorandum**

3 - Activity Alternative

The impact's significance will be higher that the proposed development due to it being a more intensive activity with constant anthropogenic aspects being project on the site. The potential negative impacts associated with this alternative have been deemed to be of a low to moderate negative significance (once mitigated), according to the

impact significance rating methodology used.

No-go (compulsory)

If the status quo is maintained:

If the status quo is maintained, the current impacts will still be existing on the proposed area. No additional soil erosion or vegetation clearance would occur. No additional noise and extra lighting could nuisance the neighbours. The land will stay productive under the current activity.

On the other hand, no job opportunities will be created and no contribution will be made to the upliftment of the community and infrastructure development.

7. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

- **Impacts on soil (stability and erosion of disturbed surfaces)**
- **Potential for surface and groundwater pollution**
- **Waste generation**
- **Noise pollution**
- **Air pollution**
- **Visual pollution**
- **Traffic safety issues**
- **Employment opportunities created is more.**

For alternative:

Status quo:

- Impacts on soil (stability and erosion of disturbed surfaces)
- Potential for surface and groundwater pollution
- Waste generation
- Noise pollution
- Air pollution
- Visual pollution (to a larger extent)

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The identification and description of the potential or anticipated impacts (herein referred to as environmental aspects) was the result of an assessment of the relevant environmental conditions and the issues identified during the public participation exercise, terrain assessments, specialist studies and desk research. An objective rating of the significance of the potential impacts resultant of the proposed development revealed that impacts were predominantly low (negative) and with two moderate (positive) impact anticipated (local economy and social impact) - during the construction and operational phases respectively. This means that it is possible for the project to proceed, providing that the impact mitigation measures provided are strictly implemented in the design, construction and operational phases of the development.

This process revealed that no fatal environmental flaws were identified that should prevent the approval of the proposed development. In summary, the main environmental aspects that need to be addressed during project implementation are:

- Design stage: the proposed development position layout should be well thought out, in terms of the proposed site and the alternative.
- Construction stage: addressing general social and traffic safety, air quality, noise generated, waste management, construction and restoration/landscaping of the site.
- Operational stage: maintaining all services on a regular basis and promoting jobs.

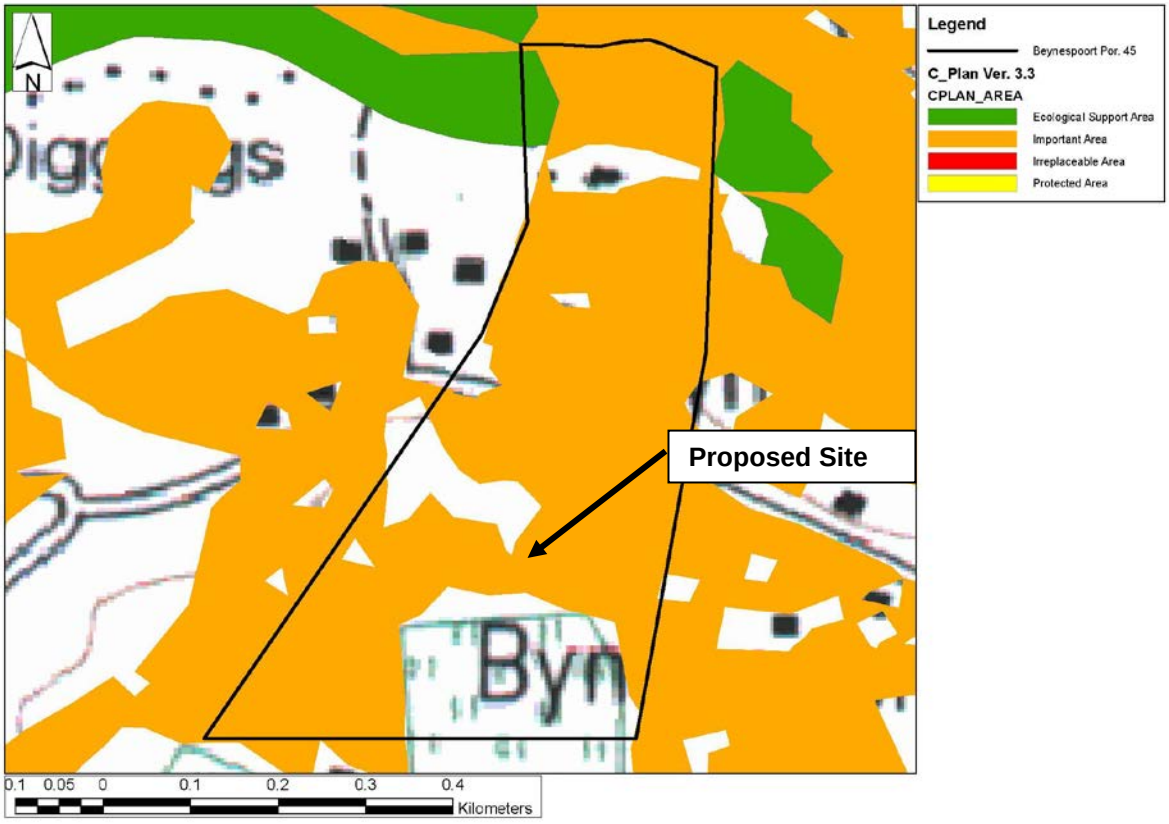
The ultimate approval of this project lies with the ruling of GDARD. However, this EAP (REC

Services) is of the independent opinion that the EIA process has determined that there are no fatal environmental flaws that would constitute the refusal of authorisation of the project. It is trusted that this environmental impact assessment report gives a balanced view of the anticipated environmental impacts associated with the proposed development and that the environmental management program attached herewith will adequately mitigate the impacts

8. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

The Gauteng Environmental Management Framework (EMF) was consulted with the Tshwane Spatial development Framework as well as the Gauteng conservation plan (version 3.3) to determine the land use and environmental sensitivities in and around this farm. This area according to the EMF the site falls inside an agricultural land use area. The following GIS map indicates the sensitivities of the site according to C-Plan 3.3:



9. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).

YES

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Recommendations:

It is recommended that the preferred proposal is approved, subject to the following conditions:

General conditions proposed:

◊ All mitigation measures as described in this report should be adhered to by the developer (these measures will be made part of the EMPr).

◊ The conditions of the Record of Decision from GDARD should be written into the EMPr and be implemented as such.

◊ The recommendations of the specialist studies, as listed and to be attached in the appropriate appendices of the Final Basic Assessment Report must be implemented.

◊ The EMPr as attached to this document should be made part of the contractual documents of contractors. The project manager must also account for the cost of this document's implementation before construction takes place.

◊ The impact mitigation measures recommended in the Basic Assessment Report should be adhered to. Service provision to the proposed development should be granted by the local authority prior to the commencement of any construction activities on site.

In the opinion of the consultant , there are no environmental impacts that have been identified that will be detrimental to the environment to such an extent that the proposed development should not be permitted, nor were any sensitive environmental components or fatal environmental flaws identified within the proposed development area. Great care was taken when determining the layout of the proposed development to ensure that areas with high environmental sensitivity were avoided.

10. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

Need:

Many cemeteries, particularly in Japan and Europe as well as those in larger cities have run out of permanent space. In many cities, traditional burial plots are extremely scarce and expensive.

The cost as well as the recent vandalism related to cemeteries, increased the demand for private cemeteries. Historically, churches had the function of housing a cemetery on the property in so called church yards. Lack of space as well as legislation, replaced these facilities by cemeteries situated on the outskirts of towns and cities. Urbanization and rapid expansion of town and cities, in some cases enclosed these sites. This further strains expansion possibilities if exiting cemeteries sites due to increased demand.

An article in Property 24 dated 19 October 2016 is quoted directly below:
"The property needs in South Africa are evolving as more and more people move into urban areas. In 1960, around 46.6% of the population lived in urban areas, however, that figure has changed dramatically with around two-thirds of the South African population now living in metropolitan hubs.

"Urban living surpassed rural living in South Africa in 2009. Currently, South Africa has a higher urbanisation rate than the world average, and it is expected to continue increasing at a rapid rate."

"According to a survey released by the South African Institute of Race Relations, the proportion of people living in urban areas increased from 52% in 1990 to 62% in 2011. The share of those living in rural areas dropped from 48% to 38% over the same period," says Adrian Goslett, Regional Director and CEO of RE/MAX of Southern Africa."

"Urban living surpassed rural living in South Africa in 2009. Currently, South Africa has a higher urbanisation rate than the world average, and it is expected to continue increasing at a rapid rate." Goslett says there are two major causes that have brought about the trend - one being that people in post-apartheid South Africa have more freedom to move around, and the other that there is higher economic growth within metropolitan areas. "People are drawn to urban areas because there are greater employment opportunities. Urbanisation has created a concentration of economic activity, which is alluring to people who need jobs," he says.

Goslett says urbanisation is not a trend that is unique to South Africa. Globally around 54% of the world's population currently lives in urban areas, which is around 3.9 billion people. "The largest percentage of growth in urban areas has been in the smaller cities. This is mostly because these areas have a small initial population, increasing economic activity and lessening competition." He says urbanisation is not a trend that is unique to South Africa. Globally around 54% of the world's population currently lives in urban areas, which is around 3.9 billion people.

It is estimated that this will grow to around 66% by 2050, which is in the region of 6.4 billion people. It is expected that as a continent, Africa's rate of urbanisation will overtake Asia's by the year 2030. "As the population continues to push into urban
areas and land becomes more and more scarce…"

"People are migrating to suburban inner-city areas where they can live, work and play, eat and shop. This not merely because it is the place to be, but rather because of the convenience and lifestyle urban living provides," says Goslett.

Gauteng province, has both the biggest and the fastest growing population, according to census 2011, with 12.2-million people counted in 2011 - a 33.7% increase over 2001, more than double the national average increase. The condense version of the information provided on the SAIRR website indicates the projected increase in the population that will also lead to an increased need for facilities such as cemeteries.

Council's policy for the area in terms of the RSDF will allow general residential densification in the area. The proposed densification and the implementation of higher density residential uses in the area will also lead to a higher population in the area, which in effect will increase the need these facilities.

Desirability/Site Evaluation:

(a) Facts and circumstances to the application
Principles of the National Development Framework, Provincial Spatial Framework, IDP and MSDF are addressed including, integration of land use i.e. surrounding mining areas and a proposed memorial park/cemetery in in close vicinity of residential developments will support public transport transit-oriented development, shorten travel distances. The proposed development will redress and reversing entrenched spatial equalities regarding in the provision of social and economic infrastructure; fight poverty and build clean, healthy, safe and sustainable communities where social services are developed to serve the surrounding communities. The development of memorial park/cemetery an open space area that is area that is previously disturbed by mining activities and has a compromised ecological value and outside the urban edge will make effective use of existing land and infrastructure.

In terms of the Regional Spatial Development framework, the site is accessible to an "Existing Mobility Spine" as well as "Open Space/conservation" adjacent and upstream from the Cullinan Mine and other sand mines along the stream to the north of the application site. The zone is compatible with the proposed memorial park/cemetery as these routes can accommodate Mixes use (RSDF: p.44). Routes are characterised by inter-metropolitan and inter-regional movement, pedestrian movement along the route are limited.

The proposed memorial park/cemetery is non-cyclical and the operation is in alternate hours i.e. mostly off peaks and over weekends. Due to the inter-metropolitan and inter-regional nature of movement the focus will not be pedestrian movement/walkable city but accessibility to a wider community including the northern areas of the City Tshwane and Cullinan.

(b) Development Contexts and Impact on Surrounding Properties
The majority of the land uses surrounding rural residential agricultural and rural residential. There are mining activities to the south and east and residential developments of Mahube Valley, Glenway Estates and Mamelodi extensions situated approximately 4 kilometres to the south of the application site. The intention is to develop a memorial park/cemetery including the following:
• Chapel, admin office, kitchen, reception hall, ablutions guard house;
• Graves and spaces between graves, access and pathways;
• Adult graves;
• Child graves;
• Memorial wall;
• Memorial benches; and
• Memorial trees.

The proposed development is planned upstream from mining areas of amongst others the Cullinan mine. The proposed memorial park/cemetery incorporates a buffer exceeding 500m from the stream to the north of the application site. The mining areas are typical open space areas that are disturbed and the natural qualities are much affected by previous and existing mining activities. The Environmental Sensitivity Report as per paragraph 3.8 above concluded that most of the site has evidence of disturbance by present or historical human activities.

The proposed memorial park/cemetery will be managed privately a much care will be given to the esthetical planning, appeal and management as the potential marked will rely on a facility that can be differentiated form existing other facilities. The project will be developed as a park and for this purpose the following studies were conducted in order to minimize the potential impact:
• Geotechnical,
• Geohydrological
• Environmental
• Heritage
• Engineering Services
• Traffic consideration.

The findings and recommendations were incorporated in the project formulation/site planning and will be acknowledged as part of the operation of the proposed use. The multi-disciplinary approach as well as the site specific considerations will address and minimise the impact of the proposed development on the surrounding properties and area.

(c) Access
Gautrans approved a new access road off Road R573 and indicated that they will not support a dedicated access and that the road must be linked to the gravel road to the north of the application site. A new access, constructed to the authorities standards, will not have a detrimental effect on the mobility function of the road and will not affect any of the existing accesses currently utilized by surrounding property owners.

(d) Sufficient Parking and Vehicular Movement and Public Transport
All aspects as recommended in the Traffic Impact Study will be incorporated in the site planning:
• The new access and a section of the access road up to the access;
• Inbound lane: 4,5m , Outbound lane 4,5m, Pedestrian gate and Stacking length: 30m
• Provision should be made on-site for parking and circulation for small and standard buses.

(e) Developable Portion
The intention is to rezone a part of the property to accommodate a proposed memorial park/cemetery. The application is intended on part a-b-c-d-a measuring 13,2 hectares. The proposed memorial park/cemetery incorporates a buffer exceeding 500m from the stream to the north of the application site. The site plan also incorporated findings of both the Geotechnical and Geohydrological investigation by concentrating the proposed development on the Diabase Regions (Zone II) ranked satisfactory with 82 points a per the ranking system as described above.

The following guidelines have been addressed in the site planning as per the proposed site plan in order to limit the impact of the proposed use:

▫ Coverage of buildings will be limited to 1 % and all the main buildings are planned to the centre of the site.
▫ The height of buildings shall not exceed 2 storeys or 10 metres.
▫ All parking shall be accommodated on the property.
▫ No off-street parking shall be allowed.

The size and configuration of the proposed redevelopment thus was planned in consideration of the surrounding area.

The facilities will be established to the health- and other requirements of the council.

All structures on the application property will be made in compliance with the National Building Regulations.

11. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED
(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

3 years: 2017 to 2020 for construction.

12. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached	YES

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.