

BASIC ASSESSMENT REPORT



destea

department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

(For official use only)

File Reference Number:

Application Number:

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **08 December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. 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.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. 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 rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES ✓	NO
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If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

The proposed project involves the development of a residential estate on the remainder of the Farm Fouriestrust 2525 District. The size of the proposed development is 15,6960ha. The proposed residence will contain 28 erfs (stands), a business complex, admin block and a park.

The proposed development will be located on the remainder of the Farm Fouriestrust 2525 District within the Mangaung Metropolitan Municipality, Bloemfontein, Free State Province. See attached locality map on **Appendix A**.

The proposed project is listed under Government Notice R 983 (Listing Notice 1), Activities 27 (i) (ii) and 28 (ii); as activities which cannot commence without Environmental Authorisation from the competent authority.

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN 983,984 and 985	Description of project activity
Example: <i>GN 983 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</i>	<i>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</i>
GN 983 Activities 27 (i) (ii): The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management	The proposed development is situated in an area where there is indigenous vegetation of more than 1ha which will be cleared.

plan.	
GN 983 Activity 28 (ii): Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare; excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.	The proposed development is a residential activity on land that was used for agriculture and the extent is approximately 15ha.

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 982, Regulation 2014. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether 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. 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.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should

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be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Remainder of farm Fouriestrust 2525 in Mangaung Metropolitan Municipality	29° 03' 11.81"	26° 04' 42.83"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative:

Alternative S1 (preferred)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Latitude (S):

Longitude (E):

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A of this form.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
House stands, a business complex, admin block and a park.	29° 03' 11.81"	26° 04' 42.83"

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Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
House stands, a business complex (including admin block), office park, lodge and recreational area	29° 03' 11.81"	26° 04' 42.83"
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1 (preferred alternative)
Solar Energy is the proposed alternative technology alternative for the proposed project. This means that solar will be used to power up the different units and lights. Solar geysers will be used for the proposed project.
Alternative 2
The existing energy supply from the municipality will be used as an additional support to the proposed solar energy. This is to ensure that the project does not fully rely on the electricity supply from the municipality.
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

e) No-go alternative

Should the site not be developed the following potential impacts associated with the construction phase of the proposed development will not occur. The impacts of the No-go alternative can be both positive and negative in this instance.

Positive impacts of the no-go alternative include are particularly related to the intact nature of the environment:

- No added possibility of soil and groundwater pollution.
- No added increase in traffic volumes due to construction vehicles accessing the site.
- No added noise pollution that can be associated with construction related activities, machinery

Negative impacts would include

- No jobs will be created. Thus there will be a loss of income in the local economy.

- The proposed site will stay in its current state and will not contribute anything to the local economy as it is too small to use for agricultural purposes. Arable land has low potential to yield reliable and viable crops.
- Additional residential and much needed institutional erven and units will not be provided. The
- Industries that provide goods, materials and services will not benefit from the construction resulting in further loss of income in the local economy

Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1¹ (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

152304m ²
m ²
m ²

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:

m
m
m

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

156960m ²
m ²
m ²

4. SITE ACCESS

Does ready access to the site exist?

YES ✓	NO
	m

If NO, what is the distance over which a new access road will be built

¹ "Alternative A.." refer to activity, process, technology or other alternatives.

Describe the type of access road planned:

There is already existing access road to the site. The Nelson Mandela Drive will be the access road from the Bloemfontein town to the site, while the Abrahamskraal road will be used at the direct access road to the site.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

Access road is indicated on the site plan and locality map.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (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 map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s);
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (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 degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

A locality map is attached as **Appendix A**.

6. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);

- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

A layout/route plan is attached as **Appendix A**.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

A sensitivity map is attached as **Appendix A**.

8. SITE PHOTOGRAPHS

Colour photographs from the centre 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 Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8 major compass directions photographs are attached under **Appendix B**

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C 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.

Facility illustration of the activity is attached as **Appendix C**.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	YES ✓	NO	Please explain
The proposed site of the project is zoned as "holdings" which means it's suitable for agricultural and residential activities			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO ✓	Please explain
To a certain extent, the proposed project will be in line with the provincial PSDF. However, the proposed project is outside the urban edge.			
(b) Urban edge / Edge of Built environment for the area	YES	NO ✓	Please explain
The proposed project is outside the urban edge			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES ✓	NO	Please explain
Mangaung has relatively high levels of unemployment and poverty, it can be expected that the SMME sector will play an important role in job creation and poverty alleviation. The proposed project forms part of SMME and therefore will create a small business sector that will increase the sustainability of the local economy, increase the competitiveness of local businesses, generate jobs and broaden the tax base of the municipality of which it all forms part of the IDP.			
(d) Approved Structure Plan of the Municipality	YES ✓	NO	Please explain
The proposed development is a housing development.			

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(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES ✓	NO	Please explain
The proposed project will have various environmental impacts of varying significance and may compromise the integrity of the existing EMF if not well managed. However, the proposed project will be environmentally and economically sustainable especially in relation to locally economy through job creation and provision of eco-friendly housing units justifies the project. The anticipated environmental impacts will be managed according the EMPr prepared for this project, thereby reducing the impact on the integrity of the EMF.			
(f) Any other Plans (e.g. Guide Plan)	YES	NO ✓	Please explain
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES ✓	NO	Please explain
The land use associated with the proposed activity is currently used for both residential and agricultural activities. The proposed project will only use the land for residential activities. The activity will promote the objectives of the Mangaung Metropolitan Municipality IDP through provision of housing and the strengthening of the local economy through job creation.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES ✓	NO	Please explain
The project is addressing the issues of supply of housing aimed at a particular market. The project implementation will add to the provision of jobs and the growth of the local economy.			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES ✓	NO	Please explain
The proposed project is looking at alternative sources of energy such as solar energy. This will be used in conjunction with the Municipal distribution lines. There is currently no sewer system in place for the proposed development; however, a sewer holding facility will be developed and effluent will be collected and disposed of to the nearest wastewater treatment facility.			

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6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES ✓	NO	Please explain
Comment by the Mangaung Metropolitan Municipality in this regard will be attached to the final Basic Assessment Report as Appendix I			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO ✓	Please explain
This project is not part of a national programme			
8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES ✓	NO	Please explain
The proposed site of the project is zoned as "holdings" which means it's suitable for agricultural and residential activities. The proposed project will not introduce a "foreign" land use type.			
9. Is the development the best practicable environmental option for this land/site?	YES ✓	NO	Please explain
Surrounding areas have already been developed with residential units. No environmental constraints were identified to exist on the proposed site.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES ✓	NO	Please explain
The benefits of the proposed project will outweigh the negative impacts of it. The land was previously used for agriculture; however the yield of the crops was low. The proposed residential housing will provide far more benefits to the developer and contributing to the local economy through job creation. Mitigation measures of negative impacts identified are included in this Report as well as in the EMPr.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO ✓	Please explain
There are already existing similar projects within the Municipality.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO ✓	Please explain
The proposed project will provide housing units to the locals and improve the local economy.			

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13. Will the proposed activity/ies compromise the “urban edge” as defined by the local municipality?	YES	NO	Please explain
The proposed project is outside the urban edge.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO ✓	Please explain
The project is to provide housing and is a private amenity			
15. What will the benefits be to society in general and to the local communities?	Please explain		
Constructing the proposed development will result in direct jobs being created for the construction of the various residential units. Indirectly, jobs will also be created in industries that provide goods, materials and services. The proposed development will lead to an increase in the level of local employment in the areas surrounding the development site. Both short-term and long-term employment will be created.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
The proposed development will provide housing units and business complex that will stimulate the local socio-economy of the area.			
17. How does the project fit into the National Development Plan for 2030?	Please explain		
The proposed development offers housing that will be safe and secure, will provide both short term and long term employment ultimately reducing poverty and inequality.			
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.			
<p>The proposed development takes into account the integration of the principles of environmental management as set out in section 2 of NEMA into the making of all decisions which may have a significant effect on the environment.</p> <p>Further, the proposed project identifies, predicts and evaluates potential impacts on the environment. It takes into account socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management.</p> <p>In addition, adequate and appropriate opportunity for public participation in decisions that may affect the environment are provided;</p>			

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

The principles set out in Section 2 of NEMA were applied and incorporated. They included:

- Relevant considerations, including the state's responsibility to respect, protect, promote and fulfil the social and economic rights served as the general framework for this project;
- The environmental impact assessment and EMPr placed people and their needs at the forefront of its concern, and served their physical, psychological, developmental, cultural and social interests equitably.
- Development must be socially, environmentally and economically sustainable.
- All relevant factors of sustainable development were considered including the following:
 - that the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
 - that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;
 - that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;
 - that waste is avoided, or where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner;
 - integrated environmental management was applied in this study, acknowledging that all elements of the environment are linked and interrelated
- The participation of all interested and affected parties in environmental governance were promoted, and all had the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons were ensured.
- Decisions took into account the interests, needs and values of all interested and affected parties.

11. 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, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act, 1998 (Act 107 of 1998)	NEMA principles and Objectives have been taken into consideration in respect of the identification of	Department of Environmental Affairs	1998

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	environmental impacts, the assessment of their significance and need to mitigate; public consultation processes followed as part of the Basic Assessment.		
2014 EIA Regulations	The proposed development comprises listed development activities under Listing notices 1 and 3 of the EIA Regulations.	Department of Environmental Affairs	2014
National Water Act, 1998 (Act 36 of 1998)	<p>The Act ensures protection of water resources.</p> <p>A wetland was noted in proximity to the proposed development, therefore the requirements of the Act would apply.</p>	Department of Water Affairs	1998
Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)	<p>To provide for control over the utilization of the natural agricultural resources in order to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants; and for matters connected therewith.</p> <p>The site has been used for agricultural purposes.</p>	Department of Agriculture	1983
National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004)	<p>The purpose of the Biodiversity Act is to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA and the protection of species and ecosystems that warrant national protection.</p> <p>Listed invasive alien species in</p>	Department of Environmental Affairs	2004

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	the Regulations promulgated in terms of this Act that may occur on the property must be controlled / eradicated as specified.		
National Heritage Resources Act, 1999 (Act 25 of 1999)	<p>The Act legislates the necessity for cultural and heritage impact assessments in areas earmarked for development, which exceed 0.5ha. The Act makes provision for potential destruction to existing sites, pending the archaeologist's recommendations through permitting procedures.</p> <p>There are several graves on the proposed property.</p>	South African Heritage Resources Agency	1999
Townships Ordinance, 1969 (Ordinance Number 9 of 1969)	Townships ordinance, 1969 (ordinance number 9 of 1969) in order to establish the proposed township	Mangaung Metropolitan Municipality	1969
National Environmental Management: Air Quality Act, Act 39 of 2004	The objective of the Act is to protect the environment by providing reasonable measures for the protection and enhancement of the quality of air and to prevent pollution of air and ecological degradation. The Act makes provision for measures to control dust, noise and offensive odours.	Department of Environmental Affairs	2004
National Dust Control Regulation, 2013	It provides for the management and control of dust.	Department of Environmental Affairs	2013
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	<p>Provides for the management of waste.</p> <p>The proposed development will</p>	Department of Environmental Affairs	2008

	generate waste during the construction phase as well as the operational phase.		
The Constitution of South Africa, 1996 (Act No. 108 of 1996)	<p>The Constitution provides for an environmental right, Section 24 of the Bill of Rights.</p> <p>“Everyone has the right -</p> <p>a) To an environment that is not harmful to their health or well-being; and</p> <p>b) To have the environment protected,</p> <p>for the benefit of present and future generations, through reasonable legislative and other measures that -</p> <ul style="list-style-type: none"> • Prevent pollution and ecological degradation; • Promote conservation; and • Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.” 	National Government	1996

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

If YES, what estimated quantity will be produced per month?

YES ✓	NO
Unknown m ³	

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

It will be the responsibility of the contractor to manage the construction waste in accordance with the EMPr and this includes disposing of solid waste at a registered waste disposal site. Any solid waste produced on site will be collected in suitable containers and removed from site by the waste contractor. All waste type and quantities will be recorded and kept for inspection

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

Construction solid waste will be collected by the waste contractor and disposed of at a registered waste site of municipal landfill site.

Recyclable and reusable waste material will be treated as such.

Will the activity produce solid waste during its operational phase?

YES



NO

If YES, what estimated quantity will be produced per month?

Unknown m³

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

Solid waste to be produced during the operational phase will primarily be domestic waste which will be collected by the waste contractor and disposed of at the municipal landfill site. The frequency of the disposal at the site will be determined by the quantities of the waste collected.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Mangaung Metropolitan Municipality landfill site.

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

Waste that does not fit into the municipal waste stream will be disposed of at a registered hazardous waste disposal site.

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, then 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 NEM:WA?

YES

NO



If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES

NO



If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES

NO



If YES, what estimated quantity will be produced per month?

m³

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

YES

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.

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Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES



NO

If YES, provide the particulars of the facility:

Facility name:	Bainsvlei Sewer Treatment Works		
Contact person:	Manager		
Postal address:	P O Box 3704, Bloemfontein		
Postal code:	9300		
Telephone:	051 410 6605	Cell:	
E-mail:	gerhard.fritz@mangaung.co.za	Fax:	

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

Grey water will be reused for gardening purposes

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

YES

NO



If YES, is it controlled by any legislation of any sphere of government?

YES

NO



If YES, the applicant must 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:

The activity will not release any emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities. These will be of low concentration and local in extent for the duration of the construction phase. Appropriate mitigation measures of the anticipated impacts have been included in the environmental management programme.

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

YES

NO



If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?

YES

NO



If YES, is it controlled by any legislation of any sphere of government?

YES

NO



Describe the noise in terms of type and level:

Construction activities may lead to noise pollution in the area. Use of heavy vehicles and machinery may generate noise for the duration of the construction period. The potential noise impact will be mitigated by restricting construction activities to normal working hours, and result in low significance.

Noise during the operational phase of the development will be typically that found in residential neighbourhoods. More traffic accessing and leaving the site can be expected during the operational phase.

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater ✓	River, stream, dam or lake	Other ✓	The activity will not use water
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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:

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

Unknown litres

YES
✓

NO

There is a wetland within 500m of the proposed site. The wetland has been dammed and impacted upon by human activities. Section 21c and 21i of the NWA may be triggered by the proposed activity. The Department of Water and Sanitation has been identified as a stakeholder in this application and all information relating to this application will be forwarded to them for comment. Further, DWS will be contacted regarding the application for a Water Use Licence.

14. ENERGY EFFICIENCY

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

Due to the on-going design and improvement of the structures, no permanent design measures have been adopted; however, the activity will ensure that energy efficient measures are taken into account during the design, construction and operational phase of the activity.

The following measure are recommended to ensure that the activity is energy efficient:

- The building structure should be north-facing to optimize the use of solar energy.
- Building material that can be recycled / reused should be used rather than building material that cannot.
- The use of durable building material for parts of the building that are unlikely to be changed during the life of the building is highly recommended.
- Locally-available building material instead of imported building material should be used as much as possible (this will reduce transportation impacts and enhance local job creation).
- Solar geysers and energy saving lights will be used.
- Water harvesting will be promoted.

Energy saving measures as well as awareness will be promoted among residents (e.g. switch lights off if they are not being used; streetlights will work on timers or light sensitive sensors, which will automatically switch off when the sun rises or only switch on when motion is detected)

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

The use of alternative energy supply will be used as far as possible:

- Solar lighting.
- Solar geysers.

Use of light emitting diode (LED) bulbs.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.
3. Has a specialist been consulted to assist with the completion of this section?

YES



NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Free State Province
District Municipality	Mangaung Metropolitan Municipality
Local Municipality	Mangaung Metropolitan Municipality
Ward Number(s)	Ward 48
Farm name and number	Fouriustrust 2525
Portion number	Remainder
SG Code	F00300000000252500000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

Holdings

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?

YES



NO

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

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
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Alternative S2 (if any):

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
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Alternative S3 (if any):

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
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2. LOCATION IN LANDSCAPE

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

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input checked="" type="checkbox"/>	2.9 Seafront	<input type="checkbox"/>
2.10 At sea	<input type="checkbox"/>				

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO ✓	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO ✓	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES ✓	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO ✓	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO ✓	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES ✓	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO ✓	YES	NO	YES	NO

BASIC ASSESSMENT REPORT

An area sensitive to erosion

YES
✓ NO

YES NO

YES NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUND COVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld in good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	NO ✓	UNSURE
Non-Perennial River	YES	NO ✓	UNSURE
Permanent Wetland	YES	NO ✓	UNSURE
Seasonal Wetland	YES ✓	NO	UNSURE
Artificial Wetland	YES	NO ✓	UNSURE
Estuarine / Lagoonal wetland	YES	NO ✓	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

No wetlands were identified on the site, however a wetland system classified as a seep has been delineated to the east of the site on the adjacent property. This wetland system has been classified as natural in origin, however an agricultural dam has been created within this system, degrading its health and functional integrity.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area	Dam or reservoir ✓	Polo fields
Low density residential ✓	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture ✓
Retail commercial & warehousing	Old age home	River, stream or wetland ✓
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard ✓
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO ✓
Core area of a protected area?	YES	NO ✓
Buffer area of a protected area?	YES	NO ✓
Planned expansion area of an existing protected area?	YES	NO ✓
Existing offset area associated with a previous Environmental Authorisation?	YES	NO ✓
Buffer area of the SKA?	YES	NO ✓

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

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

YES ✓	NO
Uncertain	

The phase 1 Cultural Heritage Impact Assessment for the proposed development revealed no archaeological (Stone and Iron Ages) resources in the proposed site. However, several graves dating to the historical era, as well as historical structures were noted in the area proposed for development. The houses that are in the proposed area are three in numbers and date to the 1940s and 1950s. All these structures, irrespective of their conditions, are protected against any form of alteration by legislature. Accordingly, Section 34(1) of the National Heritage Resource Act, 1999 (Act 25 of 1999) protect these structures. In respect to Section 34(1) of the National Heritage Resource Act, no person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit, issued by the relevant provincial heritage resources authority, in this case, the Free State Provincial Heritage Resource Authority (FSPHRA). However, none of these structures can be considered to be of such significance that can prevent the proposed development from proceeding. In fact, if the noted structures cannot be reused, they can be demolished after they have been recorded in detailed, in which case FSPHRA must issue a permit for their demolition.

The noted informal graveyard is consisted of about 15 graves. Different types of grave dressing were found, these being stones, bricks, granite and some form of cement. The area where these graves are located is disturbed by the movement of cattle. The manner on which cattle moves, may move stones around the site, and because of this, stones will lose their place of origin. Hence, the number of graves is an estimate. It was thus not possible to authentically count the number of these graves. Nevertheless, all these graves have no inscription on them. According to legislature, unknown graves are handled similarly to those older than 60 years. These graves are thus protected by Section 3 of the National Heritage Resource Act, 1999 (Act 25 of 1999). Section 36 (3) of the same Act further protects these graves against any form of alterations. The noted structures are viewed to have a medium significance on a regional level. In terms of Section 7 of the National Heritage Resource Act, all these structures are evaluated to have Grade III significance.

To mitigate the impacts on these resources, the archaeologist has proposed the following measures. There are two possibilities on how graves can be mitigated:

- Firstly and mostly preferred is to fence the graves and compile a management plan to ensure their continuous conservation. This should be completed by a heritage specialist, and is done when graves are not in direct jeopardy by the proposed development.

- The second and last option is Phase-2 mitigation (relocation of graves). This procedure entails social consultation and application of permits for those older than 60 years and unknown graves, while those less than 60 years of age, authorisation should be requested with respective departments. Further to this recommendation, the developer should ensure that the descendant of the graves are sought, and notified about this proposed development which might have an impact (directly or indirectly) on their graves.

Further to these options:

- No stone robbing or removal of any material is allowed. Any disturbance or alteration on this graveyard would be illegal and punishable by law. Furthermore, the developer should maintain a reasonable buffer zone around the identified graveyards (approximately 25 metres).
- No dumping of construction material is allowed within this buffer zone and no alteration or damage on this site (buffer) may occur.
- If the developer aims to demolish some of the features of the noted buildings or structures, it is strictly recommended that a second phase heritage impact assessment is conducted by a heritage specialist. This should be done before the commencement of the proposed development, and it will entail proper documentation of these structures, as well as application for the permit to demolish (or renovate) with the FSPHRA as stipulated by the legislature.
- Alternatively, these structures can be integrated into the proposed development, in such instances, the developer will have to plan around these structures and include them in the layout plan. The current occupants of these houses are of important in the planning of the project. Conversely, the views of the occupants of these houses are crucial in planning for the potential resettlement plan.
- Should any archaeological material be unearthed accidentally during the course of construction, SAHRA should be alerted immediately and construction activities be stopped within a radius of at least 10m of such indicator. The area should then be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately. In the meantime, it is the responsibility of the Environmental officer and the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached.
- It is mandatory to report any incident of human remains encountered to the South African Police Services, SAHRA staff member and professional archaeologist. Any measure to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law.

Refer to **Appendix D3** for full report.

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

Will any building or structure older than 60 years be affected in any way?

YES ✓	NO
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Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES



NO

If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.

The provincial heritage resources authority, in this case, the Free State Provincial Heritage Resource Authority (FSPHRA) has been notified of the proposed development and comments have been requested. Further, this report (including the archaeologist report) will be sent to the FSPHRA for review and comment. In addition, application for permit will be submitted to the Authority as per the recommendations by the archaeological specialist.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

The following section was informed by the Mangaung Metropolitan Municipality Integrated Development Plan (IDP) 2015-16.

Level of unemployment:

Bloemfontein forms the economic hub of the Municipality, as well as the Province, many people are attracted to the area, and continue to stream to the city for better living conditions and employment opportunities.

Net job creation has varied significantly between 2001 and 2012, with 14 531 net jobs added to the Mangaung economy. This represents a 9.7% increase over 11 years. The largest loss was between 2004 and 2007 (when 9 168 jobs or 5.9% of jobs were lost) and the largest gain was over the following period, 2007 to 2010 (when 15 868 jobs or 10.8% of jobs were added).

Community services created a net gain of 18 640 job opportunities between 2001 and 2012. This is especially large when considering that MMM only gained 14 531 net jobs over the same period, indicating that it was compensating for significant losses in other sectors. However, the sector also had the largest single absolute loss (5 794 jobs between 2004 and 2007) and gives an indication of the danger of depending too heavily on a single employer (the state). The sector that lost the largest proportional share of its jobs was Mining, which shed 37.9% of its jobs between 2001 and 2012, followed by Agriculture, which shed 21.8% of its jobs during the same period, and Electricity, which shed 20.3% of its jobs.

The largest proportional gain in employment was in Services, which increased its employment by 35.7% between 2001 and 2012 followed by Construction at 23.1%. The labour absorption rates of Construction – especially in respect of low-skilled people - should be noted.

Finance has been slow in terms of job creation and quick to shed jobs in times of contraction. During peak growth of 23.54% p.a. between 2004 and 2007 Finance shed 1.5% of its jobs, though this was followed by 18.5% job creation between 2004 and 2007. During contraction of 3.98% p.a. between 2010 and 2012 Finance shed 11.7% of its jobs. Despite this, Finance placed third in terms of proportional growth between 2001 and 2012, adding 575 jobs.

Economic profile of local municipality:

Mangaung is the largest contributor to the GDP of the province and is regarded as one of the most diverse economies in nature. There is however a disturbing downturn in the Gross Value Added (GVA) by the region when one looks at the broad economic sectors for both the municipality and the province. Approximately 87% of economic production in Mangaung occurs in Bloemfontein while only 7% and 6% respectively occur in Botshabelo and Thaba Nchu. The economy of the City is strongly driven by community services, trade, finance and transport

The share of the total economic contribution for South Africa has fluctuated between 1.5% and 1.7% over the period 2001 and 2012. In the case of the Free State MMM increased its share of the Free State's economy from 25.5% in 2001 to 32.6% in 2004 but have fallen since to 29.8% in 2012. Concerning the population share that MMM nationally has of 1.4% (based on Census 2011), it should be mentioned that the 1.5% economic contribution is slightly larger than the population share. The economic contribution of 29.8% in the Free State in 2012 is also larger than its share of provincial population of approximately 27.2%.

Agriculture contributed 1.5% of the MMM economy in 2012. In respect of the sub-sectors, Agriculture and hunting are the main sub-sector contributing nearly 99.8% of the GVA contributions in Agriculture, around 0.2% comes from Forestry and logging. The dominance of Agriculture and hunting is expected to continue. It should be noted that the contribution of both Agriculture and Forestry and logging seemed to be in decline between 2001 and 2007. However, since then there appears to have been steady growth. Though Agriculture and hunting has been growing at 6.18% per annum between 2007 and 2010 and 4.10% between 2010 and 2012 the net effect between 2001 and 2012 was still an annual decline of 0.71%.

Historically, Mining has played a small role in the economy of MMM. Currently, Mining contributes only 0.4% of the GVA in MMM. The biggest proportional contribution in Mining still comes from Other mining and quarrying (76.0%), while Mining of metal ores have significantly increased its contribution (from 18% in 2010 to 24.0% in 2012).

Electricity, water and gas is subdivided into two sub-sectors, namely Collection, purification and distribution of water, as well as Electricity, gas, steam and hot water supply. The former sub-sector contributes 14.7% of the total GVA in this sector.

The contribution of Construction towards national GVA declined steadily between 2001 and 2012 (from 1.7% to 1.0%), with only a minor variation in the 2010 (up slightly to 1.4%) data. The contribution to provincial GVA initially increased between 2001 and 2004 (from 38.3% to 42.3%), but has since declined steadily to well below the 2001 contribution (to 34.6%).

Trade remained similar at the national level between 2001 and 2012. At the provincial level some of the initially strong growth between 2001 and 2004 were lost, falling to around the 2001 contribution.

Nationally, Transport's contribution showed some fluctuations. Provincially the strong growth between 2001 and 2004 (from 44% - 50.7%) was reversed by a drop of 8.7 percentage points between 2004 and 2012. By 2012 Transport had lost the position as the sector in which MMM had the highest percentage share in the Free State.

In Finance, the national contribution showed significant fluctuations ranging from 1.3% in 2004 to 2.1% in 2007. Provincially an increase of 5.3 percentage points was recorded between 2001 and 2004, however all of this has since been eroded and finance is now below the 2001 contribution.

Manufacturing is currently contributing about 2.4 % of the GVA in the MMM a significant reduction from 3.7% of 2007 and a massive reduction from 6.5% in 2004. The continued and growing dominance of food , beverages and tobacco products largely confirms a manufacturing geared to local need. The manufacturing industry declined between 2001 and 2007 period, recovering some ground between 2007 and 2010m before contracting further between 2010 and 2012. Between 2004 and 2007 transport equipment showed the second greatest decline (- 19.69 % p.a) and the greatest decline between 2010 and 2012 (- 14.28% p.a). Between 2007 and 2010 the Transport equipment sector showed the greatest growth of all sectors(10.55% p.a). Concerning GVA in each of the three Urban nodes in MMM, Botshabelo continues to increase its dominance in textile production, where 62.2% of gross value for the sub sector is added. For all the other sub – sectors , Bloemfontein is by far the main contributor to the GVA

Small businesses have a major role to play in the South African, and especially the Mangaung Economy in terms of employment creation, income generation and output growth. It is estimated that more than 12 million people in South Africa are actively involved in the SMME sector and account for approximately 60% of all employment in the economy and 40% of output. In an area such as Mangaung, with its relatively high levels of unemployment and poverty, it can be expected that the SMME sector will play an even more important role in job creation and poverty alleviation.

It is essential to strengthen the support systems available for SMMEs in the region in order to create a small business sector that will increase the sustainability of the local economy, increase the competitiveness of local businesses, generate jobs and broaden the tax base of the municipality.

Level of education:

Mangaung has institutions that cater for all levels of education commencing from pre-school, primary and secondary education to FETs and tertiary institutions. As such, the City is well positioned to nurture the skills of its citizens as well as those of neighbouring municipalities. Enrolment figures for early childhood development have been increasing at a high rate over the years. As the MMM positive strides are made to reduce illiteracy and increase ability of its citizens to read and write, People with no schooling have decreased from 10, 1% in 1996 to 4, 3% in 2011, People with matric have increased from 18, 7% to 30.1% in 2011 and those with higher education from 8.2% in 2001 to 14, 1% in 2011.

Whilst these are positive developments they also mean that we should increase our economic development and job creation efforts to be able to meet the demands of the growing skills pool. The MMM also has a lot of academic institutions that makes it possible to produce a lot of skill for the Metro

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R 60 Million
What is the expected yearly income that will be generated by or as a result of the activity?	R 12 -18 Million
Will the activity contribute to service infrastructure?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Is the activity a public amenity?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	180 jobs
What is the expected value of the employment opportunities during the development and construction phase?	R 5.2 Million
What percentage of this will accrue to previously disadvantaged individuals?	80 %
How many permanent new employment opportunities will be created during the operational phase of the activity?	150
What is the expected current value of the employment opportunities during the first 10 years?	R 43740000
What percentage of this will accrue to previously disadvantaged individuals?	80 %

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

- a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR) ✓	

- b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	0%	No natural areas remaining
Near Natural (includes areas with low to moderate level of alien invasive plants)	0%	No near natural areas remaining
Degraded (includes areas heavily invaded by alien plants)	15%	The area has been classified as degraded
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	85%	Approximately 85 % of the natural vegetation on site has been removed due to the use of the site as a cultivation field

- c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
(ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems		
Ecosystem threat status as per the National Environmental Management:	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)	Estuary	Coastline
	Endangered			
	Vulnerable			
	Least			

Terrestrial Ecosystems		Aquatic Ecosystems					
Biodiversity Act (Act No. 10 of 2004)	Threatened ✓	YES	NO ✓	UNSURE	YES	NO ✓	YES NO ✓

- d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The proposed study area is located within the Dry Highveld Grassland Bioregion (Mucina and Rutherford 2006). According to the National Vegetation Map of Southern Africa (2012), the surrounding vegetation associated with the study area is of the Bloemfontein Dry Grassland vegetation unit. This vegetation unit is characterised by slightly undulating bottomland landscape dominated by tall, dense grassland with intermittent patches of Karroid scrub. Karroid scrub and grasslands are formed particularly over calcrete formations. This vegetation supports a moderate-high graminoid diversity dominated by *Aristida congesta*, *Cynodon dactylon*, *Hetropogon contortus* and *Themeda triandra*. The presence of well drained soils supports punctuated communities of shrubs and herbaceous species including *Chrysocoma ciliate*, *Felicia filifolia* subsp. *filifolia*, *Asparagus striatus*, *Helichrysum dregeanum* and *Nenax microphylla*. This vegetation type is considered Endangered. It is predicted that more than 40% of this vegetation type has been transformed due to cultivation, crop production and urban expansion (Mucina and Rutherford, 2006). Only a small portion of this vegetation unit has been statutorily conserved within the Soetdoring Nature Reserve.

Despite the study site's categorisation as Endangered, upon ground-truthing the site was assessed as a degraded agricultural landscape dominated by annual weeds and pioneer species. Due to the site's location within the agricultural landscape, the area has been subject to various disturbances and further degradation by livestock overgrazing, infrastructural (roads and residential houses) developments and dryland crop production.

Areas that have been overgrazed (particularly grasslands on shallow gravelly soils) are susceptible to Karoo-bush encroachment. This was evident during the site investigation as large stands of *Acacia karroo* (Sweet Thorn) were noted surrounding the northern portion of the study site.

Vegetation micro-habitat assessment

The vegetation communities identified within the larger study area were classified according to their biophysical characteristics, importance and sensitivity of the habitat unit as well as the ecological integrity and anthropogenic uses of the associated assemblages.

The vegetation composition within the site can be differentiated into two distinct micro-habitat units, namely degraded agricultural land with intermittent patches of alien invasive vegetation and peri-urban vegetation units.

Degraded agricultural landscape micro-habitat

The degraded agricultural land micro-habitat dominated the study area and the vegetation composition was primarily comprised of annual weeds (*Nidorella resedifolia*) and pioneer alien species including *Bidens pilosa* (Common Blackjack) and *Argemone ochroleuca* subsp. *ochroleuca* (White Flowered Mexican Poppy). *A. ochroleuca* formed dense stands within the central portion of the study site, whereas *B. pilosa* was identified surrounding the fringes of the site, adjacent to the road reserve. *Ochroleuca* readily establishes populations on bare ground and these pioneer plants often prevent erosion. The presence of these species is indicator of high levels of disturbance. Graminoid species diversity within this habitat was very low with only three species identified namely *Heteropogon contortus* (Spear Grass), *Eragrostis curvula* (Weeping Love Grass) and *Chloris virgata* (Feather-top Chloris). This degraded agricultural habitat was largely devoid of trees, with the exception of agglomerations of *Acacia karroo* (Sweet Thorn) *A. karroo* was observed throughout the larger study area and was the dominant tree species identified. *A. karroo* is a heterogeneous species that often proliferate in overgrazed areas or areas where fires are suppressed (Van Wky and Van Wyk, 2013). Stands of *A. karroo* formed a windbreak area between the western and eastern portions of the site and surrounding adjacent residential houses.

Graminoid cover had a low basal density within the central portion of this micro-habitat (0-15%) with an absence of forbaceous and herbaceous species. The limited grass species were primarily increaser and annual grass species. The presence of cattle within the study site indicates that this area is used for varying degrees of grazing.

Refer to **Appendix D1** for Agricultural Report and **Appendix D2** for Ecological Assessment Report.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Mangaung Issue	
Date published	21 September 2016	
Site notice position	Latitude	Longitude
	29° 03' 04.47" S	26° 04' 41.96" E
	29° 03' 27.04" S	26° 04' 27.31" E
	29° 03' 27.04" S	26° 04' 48.18" E
	29° 03' 01.85" S	26° 04' 48.92" E
	29° 03' 12.27" S	26° 05' 22.51" E
	29° 04' 01.14" S	26° 08' 06.96" E
Date placed	17 September 2016	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 982

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 982

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Ms Ntando ZP Mbatha	South African Heritage Resources Agency	051 410 4750 mbatha.npz@sacr.fs.gov.za
Mr Prince Netshithuthuni	Centlec	051 409 2427 071 899 5254 Prince.netshithuthuni@centlec.co.za

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

Proof of registered mail, email receipts and signed acknowledgements of receipt are attached as **Appendix E2**

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
Several I&APs wanted more information regarding the project and to be registered in the I&AP database	The EAP sent information which included the BID, map and facility illustration to the I&APs
The Abrahamskraal road that will provide access to the proposed development is not in good condition. The road will have to be upgraded before such a development can be approved.	A traffic impact study will be commissioned as part of the planning for the proposed development to identify impacts the proposed development will have on the roads and community. The outcome of the study will be communicated to all I&APs as well as key stakeholders.
Where will water come from to cater for the development?	Groundwater will be used for the development. Municipal water will also be considered during the course of the planning phase.
There is no water treatment plant close by how will this be dealt with? And how will this affect the underground water?	A septic tank will be used to collect all sewage effluent. The tank will be constructed as not to affect groundwater and will ensure that the conditions of the EMPr are adhered to. A wastewater contractor will be appointed to service and manage the process.
How will household refuse be dealt with?	A waste contractor will be contracted and waste will be disposed of at the municipal landfill site.
The proposed lodge what will it be used for? Will there be a liquor licence?	The lodge will be used for overnight accommodation for guests. No liquor license is planned.
How will the project affect the property value around the site?	The proposed project will increase the value of the property as this is envisaged for high income residents.
Crime (Safety and security)	The proposed project is a high income residential development and the chance of crime from the residents is very low. Private security will be appointed to ensure security for the residents

4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

Comments and response report is attached as Appendix E3

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Mangaung Metropolitan Municipality	Ms Mpolokeng Kolobe	051 404 8577		Mpolokeng.kolobe@mangaung.co.za	Mangaung Metropolitan Municipality Cnr Nelson Mandela & Markgraaff Street Office 1017 Bram Fischer Building Bloemfontein 9301
Ward 48 Councillor	Johannes Christiaan Pretorius			xgrafies@gmail.com	Ward 48 Councillor Mangaung Metropolitan Municipality 7 Dias Crecent, Dan Pienaar Bloemfontein 9301
Department of Agriculture and Rural Development (Free State)	Pilot Nchabeleng	051 861 8483/8635 071 4858682		pilotn@fs.agric.za pilotnchabeleng@gmail.com	Department of Agriculture and Rural Development Private Bag x02 Glen Bloemfontein 9360
Department of Roads and Transport (Free State)	Mr Vincent Ntaka	051 403 7494 082 059 9720		ntakav@freetrans.gov.za	Medfontein Building St Andrews Street Office 305, 3rd Floor Bloemfontein 9300
Department of Water and Sanitation Free State	Mr William Grobler	051 405 9208		groblerw@dws.gov.za	Department of Water and Sanitation Bloem Plaza, 2nd Floor Cnr Charlotte Maxeke & East Burger Street Bloemfontein

					9301
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Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

Proof of written notifications to Organs of State is attached as **Appendix E4**

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

List of registered I&APs is attached as **Appendix E5**

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

Copies of correspondence are included in **Appendix E6**

No meetings have been held to date. However, meeting is scheduled for the 28th November 2016. Details pertaining this meeting will be communicated with all I&APs.

SECTION D: 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.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

Activity Phase	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
Planning and Design	Employment The planning and design phase will create employment for professionals to plan and design the proposed project. These include engineers, environmental consultants, surveyors, commenting authorities etc.	Medium	This is a positive impact and no mitigation is required.

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Activity Phase	Impact summary	Significance	Proposed mitigation
	Socio-cultural <ul style="list-style-type: none"> The proposed project may create positive impact on the residents who are for the project. The public can look for investment opportunities during this phase of the project. Similarly, the proposed project may create conflict within communities adjacent to the proposed site if they do not understand the impacts the proposed project may create. 	Low	<ul style="list-style-type: none"> This is a positive impact and no mitigation is required. A public participation process must be undertaken to deal with the concerns and queries of the interested and affected parties. This will in turn clear any misunderstanding at ease conflict.
Construction	Soil and Water Pollution <ul style="list-style-type: none"> The construction phase might result in increased infiltration of contaminants into the ground. Soil compaction due to movement of vehicles and machinery. The clearing of the site will result in exposed soil surfaces which may be prone to erosion, creation of dust and sedimentation of streams. Spillages of oil, lubricants and fuel from construction vehicles, plant and machinery has the potential to contaminate the soil and groundwater. Flora in these areas where contamination occurs will die. Cement mixing and the storage of fuel can lead to contamination of the soil and water resources. Storm water run-off has the potential to erode the topsoil and result in sedimentation on 	Low	<ul style="list-style-type: none"> Waste bins (with secure lids) for hazardous waste and general waste must be provided at the site camp. Vehicles and machinery must be in good working order and must be regularly inspected for any leaks. If a vehicle or machinery is leaking pollutants it must be removed from site and taken to an appropriate location for repairs. Repairs to vehicles/ machinery should not take place in outside of the designated areas allocated for such activities, except in emergencies. Drip trays must be utilized for vehicle/ machinery maintenance on site, where there is a risk of fuel/ oil/ lubricant spillage. Drip trays must be placed under generators (if used

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Activity Phase	Impact summary	Significance	Proposed mitigation
	streams if not controlled.		<p>on site) water pumps and any other machinery on site that utilizes fuel/ lubricant.</p> <ul style="list-style-type: none"> • A spill kit to neutralize/treat spills of fuel/ oil/ lubricants must be available on site. • Soil contaminated by spilled oil/ fuel/ lubricant must be excavated and disposed of in the hazardous waste bin. • Refueling of vehicles/ machinery should not take place outside of the designated areas unless strictly necessary. Where refuelling must occur, drip trays should be utilized. • Vehicles and machinery must be kept in the site camp when not in use. • Chemical toilets should be kept at the site camp. Toilets must be regularly serviced and emptied and the waste disposed of at a licensed waste water treatment site. • Cement batching (if required) must take place on an impermeable surface sufficiently large to catch all cement slurry/ run-off. Cement waste must be disposed of in the appropriate waste bin. • No release of any substance i.e. cement, oil, that could be toxic. • Place the construction camp or any depot for any substance which causes or is likely to cause pollution outside of sensitive areas including the steep slopes.

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<ul style="list-style-type: none"> Spillages of fuels, oils and other potentially harmful chemicals must be cleaned up immediately and contaminants properly drained and disposed of using correct solid / hazardous waste facilities (not to be disposed of within the natural environment). Any contaminated soil must be removed and the affected area rehabilitated immediately. Domestic waste must be removed through the services of a waste contractor and a municipal waste site must be used for disposal.
	Destruction of flora & fauna <ul style="list-style-type: none"> Construction activities will disturb the fauna that might be present on the site. Disruption of the breeding patterns of birds and animals. Potential loss of indigenous flora and habitat due to land/vegetation clearance. Risk to animals falling into the open trenches during construction. The clearing of vegetation will result in the loss of habitat, habitat fragmentation and possibly a loss of species on the site. The noises and vibrations resulting from machinery could impact on faunal species outside the site. Pollution resulting from the 	Low	<ul style="list-style-type: none"> Vegetation clearance will be limited to the development plan. Care must be taken that unnecessary clearance of vegetation does not take place. Where possible, natural vegetation must be retained or pruned. Establishment of extensive alien species will be monitored. No hunting, harming or capturing of any of the animals on the site must be allowed. This must be enforced during construction as well as the operational phase. Speed limit will be enforced on the construction vehicles and these vehicles will only

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Activity Phase	Impact summary	Significance	Proposed mitigation
	<p>construction site such as litter, solid waste, sewerage and spills of oil, lubricants and fuel could reduce the quality of the habitats in the surrounding area and directly impact on the health and welfare of the fauna and flora surrounding the site.</p> <ul style="list-style-type: none"> • Due to the disturbance of the site alien plants will be able to establish and could become a problem by infesting neighbouring land. • Injury or even loss of fauna in the area through poaching and hunting. • Increase in vermin populations. 		<p>make use of designated roads.</p> <ul style="list-style-type: none"> • No littering by construction workers is permitted. Any litter will be collected and removed off-site to a registered waste site. • Cleared indigenous vegetation can be stockpiled for possible reuse in later rehabilitation or landscaping. • Stockpiles of vegetation are only to be located in areas approved by the ECO, and may not exceed 2m in height. Methods of stacking must take cognisance of the possible creation of a fire hazard. • Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. • Alien vegetation re-growth must be controlled throughout the entire site during the construction period. • Construction time must be kept to a minimum followed by speedy rehabilitation to restore habitat and biodiversity integrity where required. • No uncontrolled collection of firewood may be allowed on the property and surroundings. • No open fires are allowed outside designated cooking areas. • no smoking is to be allowed in the vicinity of fuel dispensing areas (smoking

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>is only to be allowed in designated “safe” areas);</p> <ul style="list-style-type: none"> • Adequate fire fighting equipment must be available onsite at all times and at least one person present on the site must be trained in the use thereof. • The cleared vegetation should not be burned, but taken to the nearest available municipal disposal site or made available for use in a controlled manner. • No poison should be used to control any animals without the input of an ecologist/zoologist. • The removal and clearing of vegetation will not be allowed until an approval is obtained from the ECO.
	<p>Traffic Impact</p> <ul style="list-style-type: none"> • Increased traffic congestion is expected to occur in the area due to an increase in construction vehicle and truck traffic for the duration of the construction phase while materials are being transported to the site. • The construction phase may result in increased pressure on the condition of the road. 	Low	<ul style="list-style-type: none"> • Proper traffic calming/ speed control should be implemented in attempt to manage the influx of vehicles and prevent accidents from occurring. • The hiring of flagman in conjunction with designated travelling routes would assist in directing vehicular traffic in a suitable manner. • Regular maintenance of the access road should be implemented to ensure road stays in good condition.
	<p>Air Pollution</p> <p>Construction activities such as vegetation clearing, site preparation, earthworks, blasting and uncovered topsoil stockpiles may lead to increased dust and smoke</p>	Low	<ul style="list-style-type: none"> • Speed limits of 30km/h must be enforced in all areas, including public roads and private property to limit the levels of dust pollution.

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Activity Phase	Impact summary	Significance	Proposed mitigation
	emissions.		<ul style="list-style-type: none"> Dust must be suppressed on access roads and construction sites by the regular application of water or a biodegradable soil stabilisation agent. Water used for this purpose must be used in quantities that will not result in the generation of excessive run off. All vehicles transporting sand need to have tarpaulins covering their loads which will assist in any windblown sand occurring off the trucks. All construction activities should be restricted to normal construction working hours. All vehicles exhausts systems should be in working order to limit air pollution.
	Noise Pollution There will be an increase in noise during the construction phase due to working of machinery, equipment and vehicles as well as hammering.	Low	<ul style="list-style-type: none"> The project team must endeavour to keep noise generating activities associated with construction to a minimum and within working hours. No unnecessary disturbances should be allowed to emanate from the construction site. Due to the location of the proposed development site to residents, noise levels must be kept to a minimum at all times. If excessive noise is expected, nearby residents must be informed in advance of when the high noise levels will occur

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>and for how long they will occur.</p> <ul style="list-style-type: none"> It may be required to fit silencers on machinery if noise levels at the boundary are excessively high. All employees must be given the necessary ear protection gear. Any complaints pertaining to noise must be recorded and reported to the ECO and addressed accordingly.
	<p>Safety and security</p> <ul style="list-style-type: none"> Construction site can be a dangerous place and thus could result in harm to people and property. Possibility of an increase in crime in the area due to more people living and working in the area. 	Low	<ul style="list-style-type: none"> The provisions of the OHS Act should be implemented at all times. Security must be appointed during the construction phase of the development to help prevent crime/theft from the proposed construction site and surrounding properties. Signs should be erected on all entrance gates indicating that no temporary jobs are available, thereby limiting opportunistic labourers and crime. All structures that are vulnerable to high winds must be secured (including scaffolds and toilets). All manhole openings are to be covered and clearly demarcated with danger tape. The contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>public roads.</p> <ul style="list-style-type: none"> • Necessary personal protective equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. Hard hats, safety boots, masks etc.). • All vehicles and equipment used on site must be operated by appropriately trained and / or licensed • An environmental awareness training programme for all staff members shall be put in place by the contractor. Before commencing with any work, all staff members shall be appropriately briefed about the EMP and relevant occupational health and safety issues. • All construction workers shall be issued with ID badges and clearly identifiable uniforms. • Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimized. • Adequate emergency facilities must be provided for the treatment of any emergency on the site. • Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>the construction crew camps at all times.</p> <ul style="list-style-type: none"> The contractor must have a basic spill control kit available at the construction site and offices.
	<p>Visual Impact</p> <ul style="list-style-type: none"> Littering and illegal dumping on the site may result in an alteration of the visual character of the site. The development will result in the removal of vegetation; the erection of construction camps; construction of buildings as well as the presence of construction vehicles etc. which may all be visually intrusive. Lights from the contractor's camp and the construction site may be visually intrusive. 	Low	<ul style="list-style-type: none"> Demarcate sensitive areas and no-go areas with danger tape to prevent disturbance during construction. Plan construction times in such a manner to have the least impact on surrounding properties. Keep disturbed areas to a minimum. No clearing of land to take place outside the demarcated footprints. Minimise waste generation on the construction site and recycle waste where possible. Reduce and control dust through the use of approved dust suspension techniques as and when required. Rehabilitate all disturbed areas in accordance with the Method Statement. Maintain access roads to prevent scouring and erosion, especially after rains. Storage facilities and other temporary structures on site must be located such that they have as little visual impact on local residents as possible. Soil excavated (if any) must not be stockpiled above

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>2m.</p> <ul style="list-style-type: none"> • All temporary structures erected on site for the purposes of the project's construction phase will be removed from site upon completion of the project. • Lighting will be sufficient to ensure security but will not constitute 'light pollution' to the surrounding areas. • The site must be clean and tidy at all times.
	<p>Agricultural Potential</p> <ul style="list-style-type: none"> • Loss of arable and grazing land due to construction activities 	Low	<ul style="list-style-type: none"> • The development must be contained within the site, either by a wall or fence structure so that no access to adjacent properties can take place. • Dust monitoring during construction must form part of the EMPr as dust will reduce the quality of grazing grasses on adjacent properties. • Management of waste so that it does not impact adjacent properties must take place as per the EMPr particularly during the operational phase. • Spillages of fuels, oils and other potentially harmful chemicals must be cleaned up immediately and contaminants properly drained and disposed of using correct solid/hazardous waste facilities (not to be disposed of within the natural environment). • Any contaminated soil must be removed and the affected area rehabilitated

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>immediately.</p> <ul style="list-style-type: none"> The implementation of an alien invasive control plan must form part of the construction and operational EMPr for the development.
	<p>Heritage Impact on heritage resources within the proposed site. Several graves have been noted on site.</p>	Medium	<ul style="list-style-type: none"> Firstly and mostly preferred is to fence the graves and compile a management plan to ensure their continuous conservation. This should be completed by a heritage specialist, and is done when graves are not in direct jeopardy by the proposed development. The second and last option is Phase-2 mitigation (relocation of graves). This procedure entails social consultation and application of permits for those older than 60 years and unknown graves, while those less than 60 years of age, authorisation should be requested with respective departments. Further to this recommendation, the developer should ensure that the descendant of the graves are sought, and notified about this proposed development which might have an impact (directly or indirectly) on their graves. No stone robbing or removal of any material is allowed. Any disturbance or alteration on this graveyard would be illegal and punishable by law. Furthermore, the developer should maintain a

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>reasonable buffer zone around the identified graveyards (approximately 25 metres).</p> <ul style="list-style-type: none"> • No dumping of construction material is allowed within this buffer zone and no alteration or damage on this site (buffer) may occur. • If the developer aims to demolish some of the features of the noted buildings or structures, it is strictly recommended that a second phase heritage impact assessment is conducted by a heritage specialist. This should be done before the commencement of the proposed development, and it will entail proper documentation of these structures, as well as application for the permit to demolish (or renovate) with the FSPHRA as stipulated by the legislature. • Alternatively, these structures can be integrated into the proposed development, in such instances, the developer will have to plan around these structures and include them in the layout plan. The current occupants of these houses are of important in the planning of the project. Conversely, the views of the occupants of these houses are crucial in planning for the potential resettlement plan. • Should any archaeological

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Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>material be unearthed accidentally during the course of construction, SAHRA should be alerted immediately and construction activities be stopped within a radius of at least 10m of such indicator. The area should then be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately. In the meantime, it is the responsibility of the Environmental officer and the contractor to protect the site from publicity (i.e., media) until a mutual agreement is reached.</p> <ul style="list-style-type: none"> It is mandatory to report any incident of human remains encountered to the South African Police Services, SAHRA staff member and professional archaeologist. Any measure to cover up the suspected archaeological material or to collect any resources is illegal and punishable by law.
	<p>Socio-economic impact</p> <ul style="list-style-type: none"> The construction phase of this development is expected to generate a number of temporary jobs mostly to previously disadvantaged individuals. During operational phase, permanent jobs will be created to maintain and manage the property. Most of these jobs will be directed to the locals and 	Medium	<ul style="list-style-type: none"> This is a positive impact and no mitigation required, however preference should be given to historically disadvantaged individuals from the local, surrounding community, when appointing employees for construction work. Employment of local labour will be a positive impact of

Activity Phase	Impact summary	Significance	Proposed mitigation
	previously disadvantaged individuals.		<p>the project and must be encouraged.</p> <ul style="list-style-type: none"> During the construction phase, jobs must be created for unemployed local people and skills must be transferred to them. Where viable, the work must be executed in a labour intensive manner to create as many jobs as possible. It is the employer's responsibility to adhere to the municipality's guidelines, principles and policies regarding employment.
Operational	Soil and groundwater pollution <ul style="list-style-type: none"> Possibility of contamination of the soil, surface and groundwater as a result of accidental spillages, petrochemical and sewerage leaks. Possible pollution of storm water and subsequent downstream water resources should the sewerage infrastructure (blocked pipes) not be maintained 	Low	<ul style="list-style-type: none"> Waste bins (with secure lids) for hazardous waste and general waste must be provided A spill kit to neutralize/treat spills of fuel/ oil/ lubricants must be available at all times. Soil contaminated by spilled oil/ fuel/ lubricant must be excavated and disposed of in the hazardous waste bin. Wastewater systems must be regularly inspected and maintained to prevent pollution and spillages
	Waste generation & disposal Possibility of litter spreading by wind to adjacent areas. Especially if household refuse bags are put out for delivery before the day scheduled for pickup. Stray dogs will most likely rip the bags leading to litter being blown into surrounding areas.	Low	<ul style="list-style-type: none"> Domestic waste must be removed regularly through the services of a waste contractor and a municipal waste site must be used for disposal.
	Soil erosion	Low	<ul style="list-style-type: none"> Erosion control measures

Activity Phase	Impact summary	Significance	Proposed mitigation
	Potential erosion of exposed soil.		<p>must be implemented in areas sensitive to erosion such as edges of slopes, exposed soil etc. These measures include but are not limited to - the use of sand bags, hessian sheets, silt fences, retention or replacement of vegetation</p> <ul style="list-style-type: none"> • Do not allow surface water or stormwater to be concentrated, or to flow down slopes without erosion protection measures being in place. • All disturbed areas must be rehabilitated as soon as construction in an area is complete • An indigenous landscaping plan is recommended for garden areas within the development
	Noise Pollution Increased noise pollution	Low	<ul style="list-style-type: none"> • Speed limit signage must be place in the residence and must be adhered to. • No hooting signage should be place in the residence and must be adhered to.
	Traffic Increased traffic on the road	Low	<ul style="list-style-type: none"> • Proper traffic calming/ speed control should be implemented in attempt to manage the influx of vehicles and prevent accidents from occurring. • Regular maintenance of the access road should be implemented to ensure road stays in good condition
	Visual The proposed project will change the scenery of the area due to	Low	<ul style="list-style-type: none"> • Minimise waste generation on the construction site and recycle waste where

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Activity Phase	Impact summary	Significance	Proposed mitigation
	housing construction		<p>possible.</p> <ul style="list-style-type: none"> • Maintain access roads to prevent scouring and erosion, especially after rains. • Lighting will be sufficient to ensure security but will not constitute 'light pollution' to the surrounding areas. • The site must be clean and tidy at all times. • Institute a proper landscape management plan (which includes tree planting) to ensure that built up structures may blend with the natural environment.
	<p>Storm water</p> <p>Increase storm water due to increased paved area.</p> <p>Storm water run-off has the potential to erode the topsoil and result in sedimentation of downstream water resources.</p>	Low	<ul style="list-style-type: none"> • Do not allow surface water or stormwater to be concentrated or to flow down slopes. • The surface drainage system must be regularly inspected and damage reported and repaired, especially after heavy rains.
Decommissioning	It is not anticipated that the proposed project will cease in the near future. However, if full decommissioning is decided upon, a rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan.	Low	A rehabilitation plan will be developed and submitted for approval. The end-use of the area will be kept in mind during the compilation of the rehabilitation plan.
Indirect impacts:			
Phase	Potential Impact	Significance	Mitigation Measures

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Activity Phase	Impact summary	Significance	Proposed mitigation
Planning and Design	Employment The planning and design phase will create employment for professionals to plan and design the proposed project. These include engineers, environmental consultants, surveyors, commenting authorities etc.	Medium	This is a positive impact and no mitigation has been proposed.
	Socio-cultural <ul style="list-style-type: none"> The proposed project may create positive impact on the residents who are for the project. The public can look for investment opportunities during this phase of the project. Similarly, the proposed project may create conflict within communities adjacent to the proposed site if they do not understand the impacts the proposed project may create. 		<ul style="list-style-type: none"> This is a positive impact and no mitigation is required. <p>A public participation process must be undertaken to deal with the concerns and queries of the interested and affected parties.</p>
Construction	Socio economic <ul style="list-style-type: none"> Constructing the proposed development will result in indirect jobs being created for the construction of the various residential units. Indirectly, jobs will also be created in industries that provide goods, materials and services. For example, an additional amount of goods used in construction will be required from business and industries related to the construction sector. The proposed development will lead to an increase in the level of local employment in the areas surrounding the development site. Both short-term and long-term employment will be created. 	Medium	<ul style="list-style-type: none"> This is a positive impact and no mitigation required, however preference should be given to historically disadvantaged individuals from the local, surrounding community, when appointing employees for construction work. Employment of local labour will be a positive impact of the project and must be encouraged. During the construction phase, jobs must be created for unemployed local people and skills must be transferred to them. It is the employer's responsibility to adhere to the municipality's guidelines, principles and

Activity Phase	Impact summary	Significance	Proposed mitigation
			policies regarding employment
	<p>Spread of alien vegetation Due to the disturbance of the site alien plants will be able to establish and could become a Problem by infesting neighbouring land.</p>	Low	<ul style="list-style-type: none"> • Vegetation clearance will be limited to the development plan. • Care must be taken that unnecessary clearance of vegetation does not take place. Where possible, natural vegetation must be retained or pruned. • Establishment of extensive alien species will be monitored. • Stockpiles of vegetation are only to be located in areas approved by the ECO, and may not exceed 2m in height. Methods of stacking must take cognisance of the possible creation of a fire hazard. • Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. • Alien vegetation re-growth must be controlled throughout the entire site during the construction period. • Construction time must be kept to a minimum followed by speedy rehabilitation to restore habitat and biodiversity integrity where required. • No uncontrolled collection of firewood may be allowed on the property and surroundings. • The cleared vegetation should not be burned, but taken to the nearest available municipal disposal

Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>site or made available for use in a controlled manner.</p> <ul style="list-style-type: none"> The removal and clearing of vegetation will not be allowed until an approval is obtained from the ECO
	Soil compaction and erosion Potential compaction and erosion of exposed soil.	Low	<ul style="list-style-type: none"> All disturbed areas must be rehabilitated as soon as construction in an area is complete An indigenous landscaping plan is recommended for garden areas within the development. Construction should only be limited to the development footprint of the project.
	Traffic Construction vehicles will result in increased traffic on adjacent roads.	Low	<ul style="list-style-type: none"> Proper traffic calming/ speed control should be implemented in attempt to manage the influx of vehicles and prevent accidents from occurring. The hiring of flagman in conjunction with designated travelling routes would assist in directing vehicular traffic in a suitable manner. Regular maintenance of the access road should be implemented to ensure road stays in good condition.
	Safety and Security Construction sites may attract unemployed people, so large numbers of people may gather on or around the site. These people must be kept off the site for safety reasons. Increase in crime might be possible during the construction phase should the developer not implement good management practices etc. Criminals may also	Low	<ul style="list-style-type: none"> Security must be appointed during the construction phase of the development to help prevent crime/theft from the proposed construction site and surrounding properties. Signs should be erected on all entrance gates indicating that no temporary jobs are available, thereby limiting

BASIC ASSESSMENT REPORT

Activity Phase	Impact summary	Significance	Proposed mitigation
	utilise the opportunity to steal items from the site and surrounding properties.		<p>opportunistic labourers and crime.</p> <ul style="list-style-type: none"> • The contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near public roads. • An environmental awareness training programme for all staff members shall be put in place by the contractor. Before commencing with any work, all staff members shall be appropriately briefed about the EMP and relevant occupational health and safety issues. • All construction workers shall be issued with ID badges and clearly identifiable uniforms. • Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimized. • Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and the construction crew camps at all times.

BASIC ASSESSMENT REPORT

Activity Phase	Impact summary	Significance	Proposed mitigation
Operational	Waste generation & disposal Residents littering	Low	<ul style="list-style-type: none"> Domestic waste must be removed through the services of a waste contractor and a municipal waste site must be used for disposal.
	Noise Pollution Noise pollution due to the presence of residents	Low	<ul style="list-style-type: none"> Residents must be sensitized to noise pollution within the property. Signage such as “no hooting” should be placed and adhered to at all times.
	Traffic Increased traffic on the roads	Low	<ul style="list-style-type: none"> Speed limit signage must be placed in the residence and must be adhered to. Proper traffic calming/speed control should be implemented in attempt to manage the influx of vehicles and prevent accidents from occurring. “No hooting” signage should be placed in the residence and must be adhered to. Regular maintenance of the access road should be implemented to ensure road stays in good condition
	Visual Visual intrusion to the landscape due to the presence of the proposed development	Low	<ul style="list-style-type: none"> Maintain access roads to prevent scouring and erosion, especially after rains. Lighting will be sufficient to ensure security but will not constitute ‘light pollution’ to the surrounding areas. The site must be clean and tidy at all times. A waste contractor must be employed to collect and

Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>dispose of waste at a registered or municipal landfill.</p> <ul style="list-style-type: none"> Institute a proper landscape management plan (which includes tree planting) to ensure that built up structures may blend with the natural environment.
	Storm water	Low	<ul style="list-style-type: none"> Do not allow surface water or stormwater to be concentrated or to flow down slopes. The surface drainage system must be regularly inspected and damage reported and repaired, especially after heavy rains.
Cumulative impacts:			
Aspect	Potential Impact	Significance	Mitigation Measures
Phase Construction and Operational	<p>Soil and Water Pollution</p> <ul style="list-style-type: none"> Spillages of cement, oil, lubricants and fuel from construction vehicles, plant and machinery has the potential to contaminate soil and water resources. Flora and fauna in these areas where contamination occurs may be negatively affected. The construction phase might result in increased infiltration of contaminants into the groundwater and soil. The clearing of the site will result in exposed soil surfaces which may be prone to erosion and sedimentation of downstream water resources. 		<ul style="list-style-type: none"> Waste bins (with secure lids) for hazardous waste and general waste must be provided at the site camp. Drip trays must be utilized for vehicle/ machinery maintenance on site, where there is a risk of fuel/ oil/ lubricant spillage. Soil contaminated by spilled oil/ fuel/ lubricant must be excavated and disposed of in the hazardous waste bin. Chemical toilets should be kept at the site camp. Toilets must be regularly serviced and emptied and the waste disposed of at a licensed waste water treatment site. No release of any

Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>substance i.e. cement, oil, that could be toxic.</p> <ul style="list-style-type: none"> • Spillages of fuels, oils and other potentially harmful chemicals must be cleaned up immediately and contaminants properly drained and disposed of using correct solid / hazardous waste facilities (not to be disposed of within the natural environment).
	<p>Destruction of flora & fauna</p> <ul style="list-style-type: none"> • Construction activities will disturb the fauna that might be present on the site. Disruption of the breeding patterns of birds and animals. • The clearing of vegetation will result in the loss of habitat, habitat fragmentation and possibly a loss of species on the site. • The noises and vibrations resulting from machinery could impact on faunal species outside the site. • Due to the disturbance of the site alien plants will be able to establish and could become a problem by infesting neighbouring land. 	Low	<ul style="list-style-type: none"> • Care must be taken that unnecessary clearance of vegetation does not take place. Where possible, natural vegetation must be retained or pruned. • No hunting, harming or capturing of any of the animals on the site must be allowed. This must be enforced during construction as well as the operational phase. • Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. • Alien vegetation re-growth must be controlled throughout the entire site during the construction period. • Construction time must be kept to a minimum followed by speedy rehabilitation to restore habitat and biodiversity integrity where required. • No uncontrolled collection of firewood may be allowed

Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>on the property and surroundings.</p> <ul style="list-style-type: none"> The cleared vegetation should not be burned, but taken to the nearest available municipal disposal site or made available for use in a controlled manner
	Socio-economic <ul style="list-style-type: none"> The construction phase of the proposed development will result in direct jobs being created For the construction of the proposed development. Indirectly, jobs are also created in industries that provide goods, materials and services The proposed development will lead to an increase in the level of local employment in the areas surrounding the development site. Both short-term and long-term employment will be created 	High	<ul style="list-style-type: none"> This is a positive impact and no mitigation required, however preference should be given to historically disadvantaged individuals from the local, surrounding community, when appointing employees for construction work. Employment of local labour will be a positive impact of the project and must be encouraged.
	Waste generation & disposal Waste has the potential to make any development look untidy and unhygienic. Waste generation is expected during both the construction and operational phases.	Medium	<ul style="list-style-type: none"> It will be the responsibility of the contractor to manage the construction waste in accordance with the EMPr and this includes disposing of solid waste at a registered waste disposal site. Any solid waste produced on site will be collected in suitable containers and removed from site by the waste contractor. Solid waste to be produced during the operational phase will primarily be domestic waste which will be collected by the waste contractor and disposed of at the municipal landfill site.
	Traffic Increased traffic on the road	Low	<ul style="list-style-type: none"> Proper traffic calming/speed control should be

BASIC ASSESSMENT REPORT

Activity Phase	Impact summary	Significance	Proposed mitigation
			<p>implemented in attempt to manage the influx of vehicles and prevent accidents from occurring.</p> <ul style="list-style-type: none"> • The hiring of flagman in conjunction with designated travelling routes would assist in directing vehicular traffic in a suitable manner. • Regular maintenance of the access road should be implemented to ensure road stays in good condition. • Speed limits and other road signage must be enforced in all areas, including public roads and private property.
Alternative 2			
<p>Cumulative impacts:</p> <p>Direct impacts:</p> <p>Indirect impacts:</p> <p>Cumulative impacts:</p> <p>Cumulative impacts:</p> <p>Direct impacts:</p> <p>Indirect impacts:</p>			
Alternative 3			
<p>Cumulative impacts:</p> <p>Direct impacts:</p> <p>Indirect impacts:</p> <p>Cumulative impacts:</p> <p>Cumulative impacts:</p>			

BASIC ASSESSMENT REPORT

Activity Phase	Impact summary	Significance	Proposed mitigation
Direct impacts:			
Indirect impacts:			
No-go option			
	Cumulative impacts: <ul style="list-style-type: none"> No added possibility of soil and ground water pollution. No added increase in traffic volumes due to construction vehicles accessing the site. No added noise pollution that can be associated with construction related activities 	Medium	The proposed mitigation measures above should be implemented.
	Socio-economic <ul style="list-style-type: none"> No jobs will be created. Thus there will be a loss of income in the local economy. The proposed site will stay in its current state and will not contribute anything to the local economy as it is too small to use for agricultural purposes. Arable land has low potential to yield reliable and viable crops. Additional residential and much needed institutional erven and units will not be provided. The industries that provide goods, materials and services will not benefit from the construction resulting in further loss of income in the local economy. 	High	The proposed project should go ahead.

A complete impact assessment in terms of Regulation 19(3) of GN 982 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity 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.

Alternative A (preferred alternative)

The proposed project is aimed at developing residential units which will accommodate a certain number of people. This development has both negative and positive impacts on the environment. Mitigation measures of these impacts have been proposed which aims at reducing the significance of the impacts on the environment. Activities which have positive impacts will be promoted and encouraged to maximise environmental as well as socio-economic benefits.

The following section summarises the impacts that are anticipated to result from the proposed development:

Employment Creation: The planning and design phase will create employment for professionals to plan and design the proposed project. These include engineers, environmental consultants, surveyors etc. This will be a positive impact and will result for the duration of the planning and design phase, construction phase as well as operational phase. This will have a medium to high significance depending on the phase. Short term as well as long term employment will be created by this project. The likelihood for this impact to occur is high for both phases.

Soil compaction, erosion and water pollution: The construction phase will result in soil compaction which may result in erosion. This is due to the presence and movement of machinery and construction vehicles on site. The clearing of the site will result in exposed soil surfaces which may be prone to erosion, creation of dust and sedimentation of streams. Spillages of oil, lubricants and fuel from construction vehicles, plant and machinery has the potential to contaminate the soil and groundwater. Flora in these areas where contamination occurs will die. Cement mixing and the storage of fuel can lead to contamination of the soil and water resources. This impact will be high during the construction phase and the operational phase; this impact will have low significance after mitigations measures have been implemented. The likelihood for this impact to occur is higher during the construction phase while lower during the operational phase.

Destruction of flora & fauna: Construction activities will disturb the fauna that might be present on the site and may also disrupt their breeding patterns. There is also a risk of animals falling into the open trenches during construction. The construction phase may also lead to loss of indigenous flora and habitat due to land/vegetation clearance; this may result in habitat fragmentation and possibly a loss of species on the site. Pollution resulting from the construction site such as litter, solid waste, sewerage and spills of oil, lubricants and fuel could reduce the quality of the habitats in the

surrounding area and directly impact on the health and welfare of the fauna and flora surrounding the site. Injury or even loss of fauna in the area through poaching and hunting. This impact is associated mainly with the construction phase of the project. The operational phase has little to negligible effects of this impact. With mitigation measures implemented, this impact will have low significance with a unlikely probability of occurrence.

Traffic Impact: Increased traffic congestion is expected to occur in the area due to an increase in construction vehicle and truck traffic for the duration of the construction phase while materials are being transported to the site. The likelihood of this impact is medium and with mitigation measures, the significance of the impact is low. Slight increase of traffic is also anticipated during the operational phase of the project. This impact will be of low significance when mitigation measures are employed.

Air Pollution: Construction activities such as vegetation clearing, site preparation, earthworks, blasting and uncovered topsoil stockpiles may lead to increased dust and smoke emissions. This is a definite impact and will last for the duration of construction. No dust is anticipated during the operational phase. The significance of this impact is low and unlikely to occur if proposed mitigation measures are implemented.

Noise Pollution: There will be an increase in noise during the construction phase due to working of machinery, equipment and vehicles as well as hammering. This noise will last for the duration of the construction phase. The ambient conditions around the site will experience a slight effect of this impact but with mitigation measures, this impact will be low.

Safety and security: Construction site can be a dangerous place and thus could result in harm to people and property. Possibility of an increase in crime in the area due to more people living and working in the area. This impact will last for the duration of the construction and with low significance. This impact is nonetheless, unlikely to occur should mitigation measures be implemented.

Agricultural Potential: Loss of agricultural land within the site was assessed with regards to loss of arable land as well as loss of grazing land both within the site and within adjacent agricultural properties. Due to the low agricultural potential of the site with regards to arable land (as a result of the strongly structured and impeding clay layer) the loss of arable land is predicted to be of a low significance.

Heritage: There is a potential impact on the noted informal graveyard that was found on site. Different types of grave dressing were found, these being stones, bricks, granite and some form of cement. The area where these graves are located is disturbed by the movement of cattle. Nevertheless, all these graves have no inscription on them. According to legislature, unknown graves are handled similarly to those older than 60 years. The noted structures are viewed to have a medium significance on a regional level. In terms of Section 7 of the National Heritage Resource Act, all these structures are evaluated to have Grade III significance. Mitigation measures have been proposed for

in order to prevent destruction and loss of heritage. This impact is likely to occur, but should mitigation measures be implemented, it will have a medium significance.

Socio-economic impact The construction phase of this development is expected to generate a number of temporary jobs mostly to previously disadvantaged individuals. This will be of medium significance and likely to occur. During operational phase, permanent jobs will be created to maintain and manage the property. Most of these jobs will be directed to the locals and previously disadvantaged individuals. This will last for the duration of the operational phase and will have medium significance.

Alternative B

Alternative C

No-go alternative (compulsory)

Should the site not be developed the following potential impacts associated with the construction phase of the proposed development will not occur.

- No added possibility of soil and groundwater pollution.
- No added increase in traffic volumes due to construction vehicles accessing the site.
- No added noise pollution that can be associated with construction related activities, machinery
- No jobs will be created. Thus there will be a loss of income in the local economy.
- The proposed site will stay in its current state and will not contribute anything to the local economy as it is too small to use for agricultural purposes. Arable land has low potential to yield reliable and viable crops.
- Additional residential and much needed institutional erven and units will not be provided. The
- Industries that provide goods, materials and services will not benefit from the construction resulting in further loss of income in the local economy

SECTION E. RECOMMENDATION OF 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)?

YES



NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process 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.

This report was compiled in consideration of the available information, site assessment. Desktop studies as well as the commission of specialists. Specialist that are involved in the proposed project include:

- Agricultural Impact Assessment
- Ecological Impact Assessment
- Archaeological Impact Assessment
- Geotechnical Investigations

The outcome of the various specialists were taken into consideration and the proposed project is recommended for authorisation provided all the recommendations, condition, and mitigation measures in this report, the EMPr and the specialist reports are adhered to during the planning and design, construction and operational phases of the proposed project. The proposed mitigation measures, if implemented, will reduce the significance of the identified impacts to "low", and that the proposed project should proceed.

The following is recommended for inclusion in any authorisation:

- No structure or part of it, which is older than 60 years, may be altered or demolished without the relevant permit from the provincial heritage resources authority, in this case, the Free State Provincial Heritage Resource Authority (FSPHRA). Structures can be demolished after they have been recorded in detailed, in which case FSPHRA must issue a permit for their demolition.
- No graves may be destroyed or altered without the relevant permit from the provincial heritage resources authority, the Free State Provincial Heritage Resource Authority (FSPHRA). Should the developer wish to relocate the graves, the relevant permit should be obtained from the FSPHRA before relocation and developer should ensure that the descendant of the graves are sought, and notified about this proposed development.
- Should any archaeological material be unearthed accidentally during the course of construction, SAHRA should be alerted immediately and construction activities be stopped

within a radius of at least 10m of such indicator. The area should then be demarcated by a danger tape. Accordingly, a professional archaeologist or SAHRA officer should be contacted immediately.

- A traffic impact assessment should be undertaken before the final submission of the BAR.
- An Environmental Control Officer should be appointed to supervise and ensure compliance with the conditions of the environmental authorisation and the EMPr. An during the construction phase.
- A stormwater management plan must be compiled to effectively manage clean stormwater and must form part of the EMPr before construction commences.
- The Abrahamskraal road must be upgraded prior to the operational phase of the development.
- A detailed Architectural Design of the proposed development must be compiled and included in the EMPr as an Annexure prior to commencement of construction.
- The requirements of the National Water Act 1998 (Act 36 of 1998) must be complied with noting that the proposed development is in proximity to a wetland.

Is an EMPr attached?

YES



NO

The EMPr must be attached as Appendix G.

The EMPr is attached as Appendix G

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

Details of EAP are attached as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Specialist declaration of interest is included as Appendix I

Any other information relevant to this application and not previously included must be attached in Appendix J.

KHULISO MUDAU

NAME OF EAP

SIGNATURE OF EAP

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information