



BASIC ASSESSMENT REPORT

PROPOSED LOW COST HOUSING DEVELOPMENT, LOUBOS NORTHERN CAPE

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(For official use only)

File Reference Number:

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BASIC ASSESSMENT REPORT

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2010.

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, 2010 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. The report must be typed within the spaces provided in the form. The size of the spaces provided are 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.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. 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.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. 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.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

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

YES

If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail:

The National Environmental Management Act (NEMA, Act 107 of 1998), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority based on the findings of an Environmental Assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). In the Northern Cape, these powers are delegated to the Department of Environmental & Nature Conservation (DE&NC). According to the regulations of Section 24(5) of NEMA, authorisation is required for the following:

Government Notice [R544](#) listed activities (Listing Notice 1):

11: The construction of:

- (i) Buildings exceeding 50 square meters in size; or**
- (ii) Infrastructure or structures covering 50 square meters or more;**

Where such construction occurs within a watercourse or within 32 meters of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.

18: The infilling or depositing of any material of more the 5 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock from

- (i) a watercourse;**
but excluding where such infilling, depositing, dredging, excavation, removal or moving
- (i)** is for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority; or occurs behind the development setback line.

22: The construction of a road, outside urban areas,

- (i)** With a reserve wider than 13,5 meters or,
- (ii)** Where no reserve exists where the road is wider than 8 meters, or
- (iii)** For which an environmental authorization was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Notice 545 of 2010.

23: The transformation of undeveloped, vacant or derelict land to residential, retail, commercial, recreational, industrial or institutional use, inside an urban area, and where the total area to be transformed is 5 hectares or more, but less than 20 hectares

Government Notice [R546](#) listed activities (Listing Notice 3):

13: The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation.

Project Description

It is proposed that Remainder of Farm No. 585, Gordonia Rd, Loubos, be rezoned and subdivided for the development of serviced low cost housing, including associated infrastructure

The property (Remainder of Farm No. 585, Gordonia Rd) is owned by the Mier Municipality (Applicant). No formal land use management system has been adopted by the Mier Municipality

at this stage and the land use rights on the property may be described as being undetermined.

The site is located on the old road linking Rietfontein with Groot Mier, off the R31, approximately 10km north-east of Rietfontein (via the old Rietfontein Road).

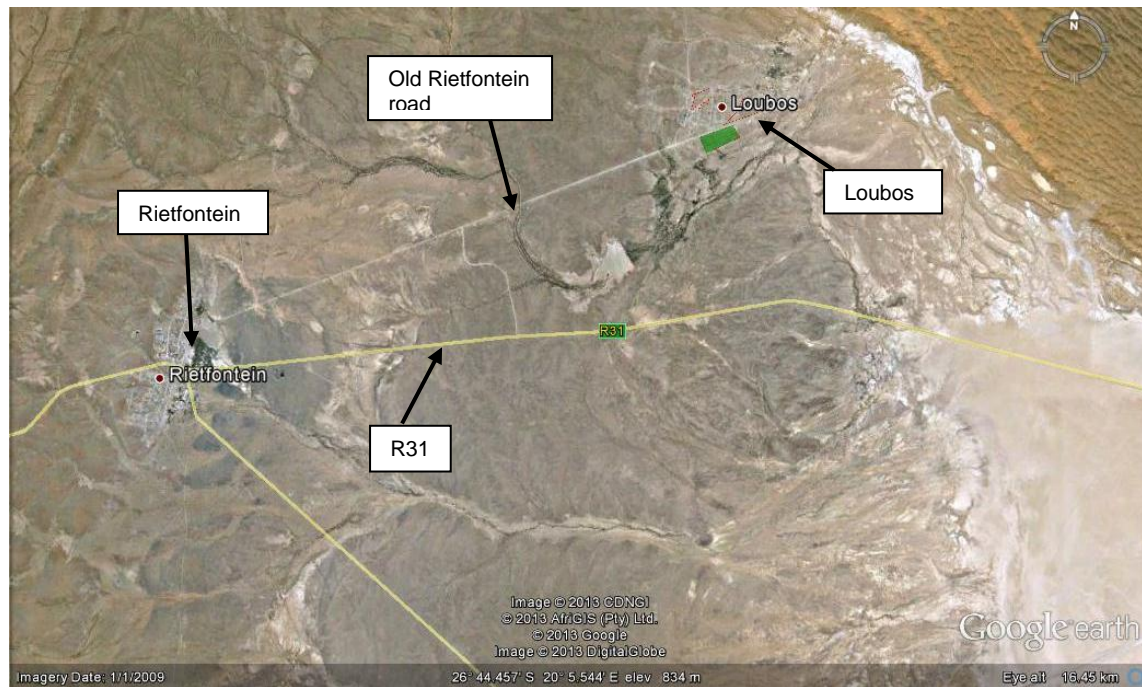


Figure 1: Aerial image showing the site locality.

The site is located over two sites, one being found in the northern parts of town between Mossie and Fink Street (infill section). The other is located in the southern sections of town, straddling the road connecting Loubos to Rietfontein. The site coordinates as follows: S 26° 42.473', E 20° 06.705', and S 26° 42.577', E 20° 07.120' (please see figure 2 below).

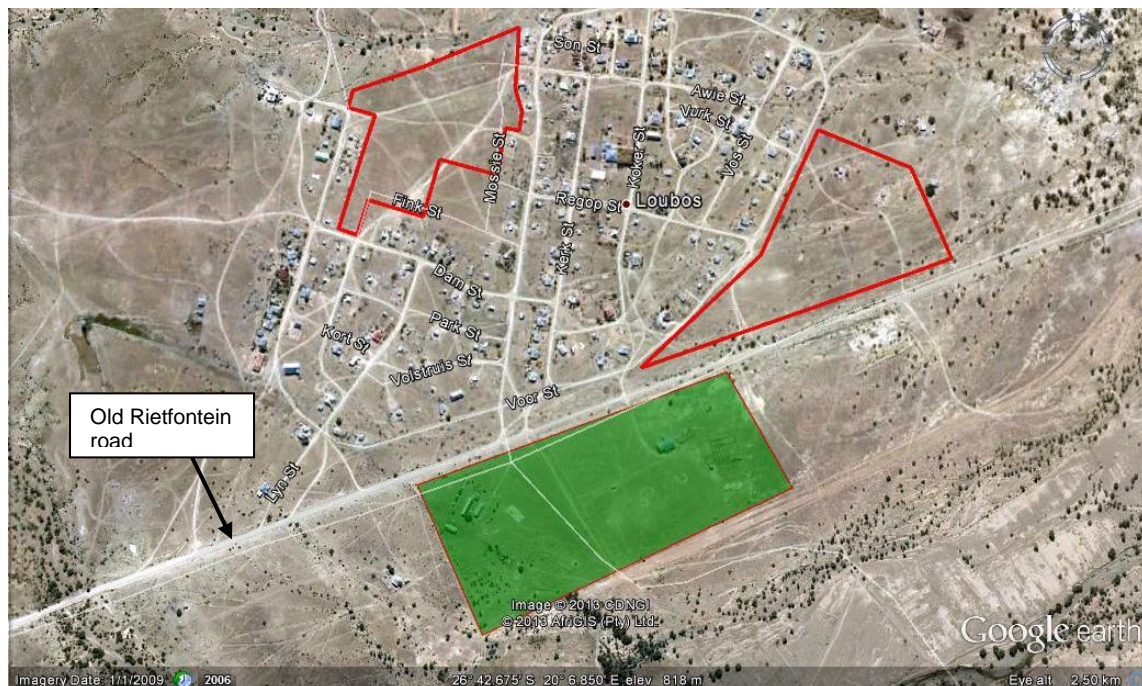


Figure 2: Aerial view of the site. The proposed site is depicted by the red polygons. The green shaded polygon represents the formulation of the site, with no development/physical alteration taking place there, and is therefore not included in this application.

Remainder of Farm No. 585 has a total area of 1627.3752ha and does not carry any specified zoning at this stage. Only approximately 15.5ha portion of the property is involved in this development proposal. One hundred and fifty four (154) individual land units are proposed, 140 of which are single residential erven, in response to the growing housing need in the municipality.

The associated infrastructure is as follows:

- **Water**

The provision of water to the proposed development will be the responsibility of the local authority.

- **Road network**

The proposed development entails an extended internal road network to functionally link with Loubos' existing road infrastructure. Of particular interest is the formalisation of the road linking Loubos and Rietfontein (also referred to as the main road) as part of the development, creating a legislative road reserve which may be extended as part of future developments. Furthermore, a functional access from this mentioned road to Loubos, additional to the access across from the school, will promote order and function. It is proposed that these accesses be better defined by enclosing the informal accesses to Loubos alongside the main road in the future.

- **Sewerage**

A septic tank will be installed for each household/erf of the development. This will be emptied/cleared once a month by a licenced service provider. It is estimated that each household will produce approximately 15 500l (15.5m³) per month.

This will be a temporary solution, until Authorisation is received for the construction and operation of a waste water treatment works for the town of Loubos (separate application).

- **Stormwater**

Storm water drainage will be accommodated above ground and in the streets of the proposed development layout, where the layout has been planned along the topography of the development site in such a way as to facilitate continued freedom of flow. Specific mention should be made of the larger storm water movement which may take place across the centre of the development site: in order to ensure minimal future damages, the areas surrounding this furrow have been left as vacant land within the layout. No problems are foreseen in this regard.

- **Electricity**

The provision of electricity to the proposed development will be the responsibility of the local authority.

The proposed development includes the following land uses (**Appendix D1**):

- **Residential Zone I**

The primary use will be for dwelling houses (detached building containing only one dwelling unit). One hundred and forty (140) land units created will be given this zoning with the objective being residential opportunity in Loubos. This zoning will cover 5.5ha of the study area with each unit having an average size of 390m². This will constitute 17.2% of the total development.

- **Business Zone I**

The primary use will be for business premises (a site or building or structure on or in which business is done and includes shops, offices, financial institutions or restaurants or sites, buildings or structures for similar uses, but does not include places of assembly or entertainment, institutions, service stations, public garages, industries, noxious trades, bottle-

stores or supermarkets). Three (3) *land units created will be given this zoning with the objective being business opportunity in Loubos. This zoning will cover 2076m² of the study area with each unit having an average size of 692m². This will constitute 0.7% of the total development.*

- Institutional Zone I

The primary use will be a place of instruction (a crèche, pre-primary school, primary school, high school, college, technikon, university, research centre, convent, public library, public art gallery, or museum or some other centre which is utilised for instruction purposes and includes a hostel appertaining thereto, but does not include a building or land unit which is mainly used as certified reformatory or industrial school or as an institution). Two (2) land units created will be given this zoning with the objective being educational opportunity in Loubos. This zoning will cover 6.8ha of the study area with each unit having an average size of 3.4ha. This will constitute 21.5% of the total development. * Please note that one of the sites, measuring 6.75ha, is not included in this application as it is only a formulization of the zoning. No development/physical alteration of the property will be taking place. (please refer to **Appendix A1** and figure 2 above.)

- Institutional Zone II

The primary use is a House of Worship (a church, synagogue, mosque, temple, chapel or any other place for practising religion and includes any building in connection therewith, but does not include a funeral parlour with related chapel. One (1) unit of this zoning will be provided for within the proposed development, providing opportunity for religious development within Loubos. The unit will be 3161m² in size, representing 1% of the total development.

- Open Space Zone I

The primary use is Public open space (land which is under or will be under the ownership of the local authority, which is not leased nor will be leased on a long-term basis, and which is utilised or will be utilised as an open space or a park, garden, picnic area, playground or square and includes a public space. Two (2) *land units created will be given this zoning within the layout, accommodating a buffer between the main road and residential area. This zoning will cover 1.6ha of the study area with each unit having an average size of 0.8ha. This will constitute 5.1% of the total development.*

- Open Space Zone II

The primary use is Private open space (any land which has been set aside in this scheme for utilisation as a private site for sports, play, rest or recreation facilities or as an ornamental garden or pleasure garden and includes public land which is or will be leased on a long-term basis as a cemetery, whether public or private. One (1) unit of this zoning will be provided for within the proposed development, providing opportunity for sports development within Loubos. The unit will be 0.9ha in size, representing 2.8% of the total development.

- Transport Zone II

Primary use will be Public Road (any road or street for public use or any land intended for such purposes). Two (2) *land units created will be given this zoning within the layout, accommodating the internal road network. This zoning will cover 5.3ha of the study area with each unit having an average size of 2.7ha. This will constitute 16.8% of the total development.*

- Authority Zone

Primary use is authority usage (means a use which is practised by a public authority and of which the locality factors are such that it cannot be classified or defined under other uses in these regulations, and includes uses practiced by;

- a) The State – such as military training centres and installations, telecommunication facilities, police stations and jails.

b) The Province – such as road stations and road camps.

c) A local authority – such as fire services, sewerage farms, dumping grounds, reservoirs, composting installations and water purification works.

One (1) unit of this zoning will be provided for within the proposed development, providing opportunity for community development within Loubos. * Please note that this site, measuring 9.5ha, is not included in this application, as it is only a formulization of the zoning. No development/physical alteration of the property will be taking place. (please refer to **Appendix A1** and figure 2 above.)

- **Undetermined Zone**

2 land units created will be given this zoning with the objective of future development and storm water accommodation. This zoning will cover 1.7ha of the study area with each unit having an average size of 0.8ha. This will constitute 5.2% of the total development.

Please refer to **Appendix A1** for the Site Development Plans.

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. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity 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.

Paragraphs 3 – 13 below should be completed for each alternative. Please note that the only feasible and reasonable alternative that has been identified and assessed is a design/layout alternative. The proposed development layout of the preferred and alternative layout will generally be over the same site, and will therefore have similar impacts (unless otherwise specified).

Site alternatives were considered, but these were deemed unfeasible. The site was selected as it will be considered infill development and will not lead to unnecessary sprawl of the town, as can be seen in Figure 4 of the Town planning report (**Appendix D1**).

The Paragraphs 3 - 13 will therefore be the same for each of the layout alternatives described below (unless otherwise specified).

Layout alternatives:

- Alternative 1 (preferred layout alternative) (**Appendix A1**)

The proposed development will be over 15.5ha and 154 new development stands are proposed, 140 of which are single residential erven, in response to the growing housing need in the municipality. A Business Zone, Institutional Zone I and Institutional Zone II, Transport Zone (roads), Open Space Zone I and Open Space Zone II and two Undetermined Zones are included.

- Alternative 2 (layout alternative) (**Appendix A2**)

The proposed development will be over 13.5ha and 153 new development stands are proposed, 146 of which are single residential erven, in response to the growing housing need in the municipality. Two stands will for Transport Zone (roads), and four for Open Space and Institutional Zone II.

This layout has a similar layout to the preferred layout.

However, no allowance has been made for business, institutional zone I, Open Space Zone II land-uses or Undetermined zones (to be rezoned in the future to suit the local authority's discretionary needs).

Alternative 1 is the preferred layout as it not only provides 140 residential opportunities, it also provides a business zone opportunity as well as a site for a school/crèche, for a Place of Worship, Private Open Space as well as allowing 2 portions to be zone Undetermined for possible future development. It therefore complies with the general principles as prescribed in Chapter 1, of the Development Facilitation Act (Act 67 of 1995), by:

- promote the integration of the social, economic, institutional and physical aspects of land development;
- promoting a diverse combination of land uses, also at the level of individual erven or subdivisions of land;
- The development must discourage the phenomenon of "urban sprawl" in urban areas and contribute to the development of more compact towns and cities.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in 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.

List alternative sites if applicable. **N/A**

Alternative:

Alternative S1¹ (preferred or only site alternative) Site A

Site B

Alternative S2 (if any) Site A

Site B

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle point of the activity

Latitude (S):

Longitude (E):

26°	42.473'	20°	06.705'
26°	42.577'	20°	07.120'
26°	42.473'	20°	06.705'
26°	42.577'	20°	07.120'

Latitude (S):

Longitude (E):

0	'	0	'
0	'	0	'

¹ "Alternative S.." refer to site alternatives.

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- End point of the activity

0	1	0	1
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Alternative S2 (if any)

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

0	1	0	1
0	1	0	1
0	1	0	1

Alternative S3 (if any)

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

0	1	0	1
0	1	0	1
0	1	0	1

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.

4. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1² (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

155000m ² (15.5ha)
135000m ² (13.5ha)
m ²

Length of the activity:

m

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:

m ²
m ²
m ²

5. SITE ACCESS

Does ready access to the site exist?

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

YES
N/A

Describe the type of access road planned:

N/A

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.

6. SITE OR 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:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWA);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);

² "Alternative A.." refer to activity, process, technology or other alternatives.

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- 6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.10 the positions from where photographs of the site were taken.

7. 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 form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 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.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

Approximately R10 780 000
Unknown at this stage
YES
YES
± 90
Unknown at this stage
80%
Unknown at this stage
Unknown at this stage
Unknown at this stage

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development phase of the activity?

What is the expected value of the employment opportunities during the development phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

What is the expected current value of the employment opportunities during the first 10 years?

What percentage of this will accrue to previously disadvantaged individuals?

9(b) Need and desirability of the activity

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

According to the Town Planning Motivational report (**Appendix D1**), the South African economy has experienced a stable growth rate during the earlier parts of the past decade, contributing to the continued stability of the country. This has had numerous positive impacts, nationally, on provincial level and locally. Since 2008, instability of the world economy has led to a slumber of this tendency and we have been experiencing the consequences of a global economic recession. The beginning of the year 2010 showed a perceptible, albeit slow, process of repair to the South African economy, resulting in an increase in investment trust. The mentioned recession was felt to a lesser extent in South Africa, than in the overall global sphere and when the recession started to subside, the country was quick to positively respond. The above mentioned aspect is mostly due to the fact that local mining- and construction activities experienced on-going growth during the recession.

The Mier Local Municipality has not at this stage been party to the significant mining boom experienced in the province, but has also seen development, albeit on a smaller scale. This growth has been brought about through a focus on the tourism sector of the economy with attractions such as game farming, hospitality infrastructure and, of course, the Kgalagadi Transfrontier Park.

These mentioned aspects have not only had an economic impact, but has also contributed to

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population increases in the municipality, be it from immigration or natural growth. With this in mind, the Mier Municipality has felt the need to provide housing opportunity throughout its area of jurisdiction and identified the towns of Askham, Welkom, Groot Mier, Loubos and Rietfontein as areas of focus.

This application for 154 new development stands in Loubos, 140 of which are single residential erven, in response to the growing housing need in the municipality.

Indicate any benefits that the activity will have for society in general:

The activity will provide much needed additional housing opportunities, which is a local, provincial and national need. The proposed development will also formalize the town.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The activity will provide much needed additional housing opportunities, as well as business opportunities by providing an erf zoned for business use, and by providing job opportunities (approximately 90 jobs, 80% of which will be to previously disadvantaged individuals) during the construction phase of the development.

DESIRABILITY:			
1.	Does the proposed land use / development fit the surrounding area?	YES	
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES	NO
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
4.	<p>If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:</p> <p>According to the Town Planning motivational report (Appendix D1), no SDF has been compiled for the Mier Municipality, thereby ruling out the possibility of development evaluation in these terms on a local level. This project has however been a directive from a Provincial level of planning and was commissioned by the Department of Co-Operative Governance, Human Settlements and Traditional Affairs (COGHSTA).</p> <p>However, it may be said that the proposed application for land use change and its associate layout is in line with the principles of the PSDF, seen as a tool for development evaluation where no local SDF exist. The local authority is therefore asked to evaluate this project upon its individual merit of providing additional housing opportunity in the Mier Municipality within the context of due legislative procedure.</p>		
5.	Will the proposed land use / development impact on the sense of place?		NO
6.	Will the proposed land use / development set a precedent?	YES	
7.	Will any person's rights be affected by the proposed land use / development? See below	YES	NO
8.	Will the proposed land use / development compromise the "urban edge"?	YES	NO
9.	<p>If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.</p> <p>Development and expansion of the town is inevitable as the population grows and the need for housing increases. However, the developers have been carefully as to where expansion of the town occurs, with emphasis on the environmental and heritage aspects, as well as consolidation of the town and its resources/services, and thus can be seen as setting a precedent for future expansion of Loubos.</p> <p>No person's rights are expected to be negatively affected by the proposed</p>		

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	<p>development. The activity is expected to have a general positive impact on the residents of the Loubos area.</p> <p>The proposed development is located within the “town commonage” of Loubos (please refer to Figure 3 of the Town Planning report (Appendix D1).</p>
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BENEFITS:	
1.	Will the land use / development have any benefits for society in general? YES <input type="checkbox"/>
2.	<p>Explain: The activity will provide much needed additional housing opportunities, which is a local, provincial and national need, as well as business opportunities by providing an erf zoned for business use, and by providing job opportunities during the construction phase of the development.</p>
3.	Will the land use / development have any benefits for the local communities where it will be located? YES <input type="checkbox"/>
4.	<p>Explain: The activity will provide much needed additional housing opportunities, as well as business opportunities by providing an erf zoned for business use, and by providing job opportunities during the construction phase of the development.</p>

10. 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:	Administering authority:	Date:
The National Heritage Resources Act, 1999 (Act 25 of 1999)	SAHRA – Northern Cape	
Northern Cape Planning and Development Act (Act 7 of 1998); - rezoning and subdivision	Local Municipality	Not yet

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(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 <input type="checkbox"/>
Unknown at this stage

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

Solid waste will be disposed of in the municipal waste stream.

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

General waste will be consolidated on site and removed to the nearest registered landfill site as often as required.

Will the activity produce solid waste during its operational phase?
If yes, what estimated quantity will be produced per month?

YES <input type="checkbox"/>
m ³

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

Solid waste removal will be disposed of in the municipal waste stream.

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

N/A

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 relevant legislation? ☐ YES ☒ NO

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

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

11(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?

15.5m³ per household per month

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.

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

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

N/A

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

☐ YES ☒ NO

If yes, is it controlled by any legislation of any sphere of government? N/A

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

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

N/A

11(d) Generation of noise

Will the activity generate noise?

☐ YES ☒ NO

If yes, is it controlled by any legislation of any sphere of government? N/A

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

If no, describe the noise in terms of type and level:

N/A

12. WATER USE

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

municipal	<input checked="" type="checkbox"/> water board	<input type="checkbox"/> groundwater	<input type="checkbox"/> river, stream, dam or lake	<input type="checkbox"/> other	<input type="checkbox"/> 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: N/A

Does the activity require a water use permit from the Department of Water Affairs? To be determined

litres
☐ YES ☐ NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

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

Solar water heating will be considered for all residential houses.

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

N/A

SECTION B : SITE/AREA/PROPERTY DESCRIPTION

Important notes:

- 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 C and indicate the area, which is covered by each copy No. on the Site Plan.

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

- Paragraphs 1 - 6 below must be completed for each alternative. **The Paragraphs 1 - 6 will be the same for each of the alternatives described below (unless otherwise specified) as the site is the same.**

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

YES

If YES, please complete form XX for each specialist thus appointed:
All specialist reports must be contained in Appendix D.

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

2.2 Plateau

2.3 Side slope of hill/mountain

2.4 Closed valley

2.5 Open valley

2.6 Plain

2.7 Undulating plain / low hills -

2.8 Dune

2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

There are no formal rivers on the proposed site, but the eastern site is a traversed a small drainage channel. The layout has taken this drainage line into consideration, and it is mostly located within erven zoned as Undetermined. According to the biodiversity assessment although the drainage channel should ideally this furrow should also be protected, but as it is relative small with very little associated riparian vegetation, it could also be incorporated within a storm water system (please refer to **Appendix A1**).

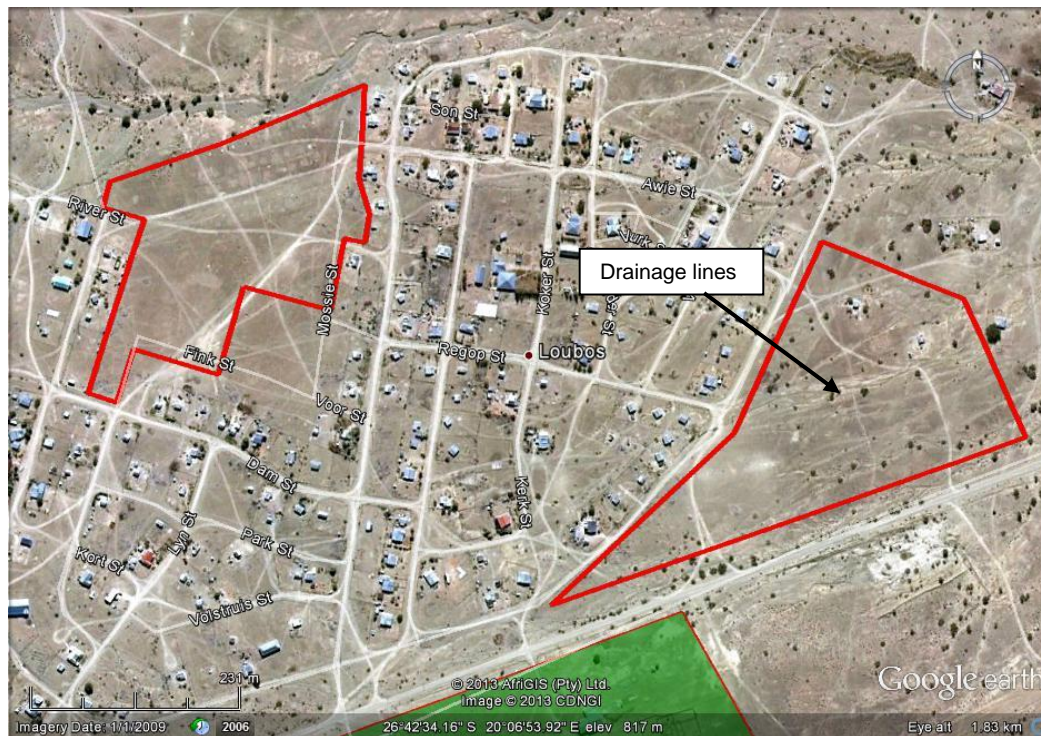


Figure 2: Aerial view of the site. The drainage lines traversing the site are evident draining from the west



Figure 3: View of one of the drainage lines traversing the site.

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

- 4.1 Natural veld — good condition^E
- 4.2 Natural veld — scattered aliens^E
- 4.3 Natural veld with heavy alien infestation^E
- 4.4 Veld dominated by alien species^E
- 4.5 Gardens
- 4.6 Sport field
- 4.7 Cultivated land
- 4.8 Paved surface
- 4.9 Building or other structure
- 4.10 Bare soil

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s). Please refer to Table 6 of the Biodiversity Assessment (**Appendix D2**).

Natural veld — good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien 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.

According to the Biodiversity Assessment (**Appendix D2**), the site is basically transformed as a result of urban associated activities and as a result, very low species diversity was encountered. Grasses were almost absent, which can most probably be ascribed to constant grazing and very low rainfall.

The proposed site is situated within the Eastern Kalahari Bushveld Bioregion. The area is used mainly for livestock grazing and or game farming. No intensive farming has been observed (lack of irrigation water). At present the proposed site and most of the available Municipal land is used for livestock grazing by the local community. Although natural fauna and avi-fauna may still be present, it is expected that it would be limited to avi-fauna, insects and maybe some reptile's species. The location

of the proposed site ensures that very little game is expected to be encountered (none was observed).

The site has been almost totally degraded or transformed (urban creep and associated activities), with very little natural veld remaining. All three of the sites now basically represent open areas used for playgrounds, informal roads, footpaths and grazing.

According to the Biodiversity Assessment (**Appendix D2**), in accordance with the 2006 Vegetation map of South Africa, Lesotho and Swaziland two broad vegetation types is expected on the sites, namely *Gordonia Duneveld* and Kalahari Karroid Shrubland. However, very little natural veld remains on any of the sites and as a result the vegetation types will not be discussed in any detail.

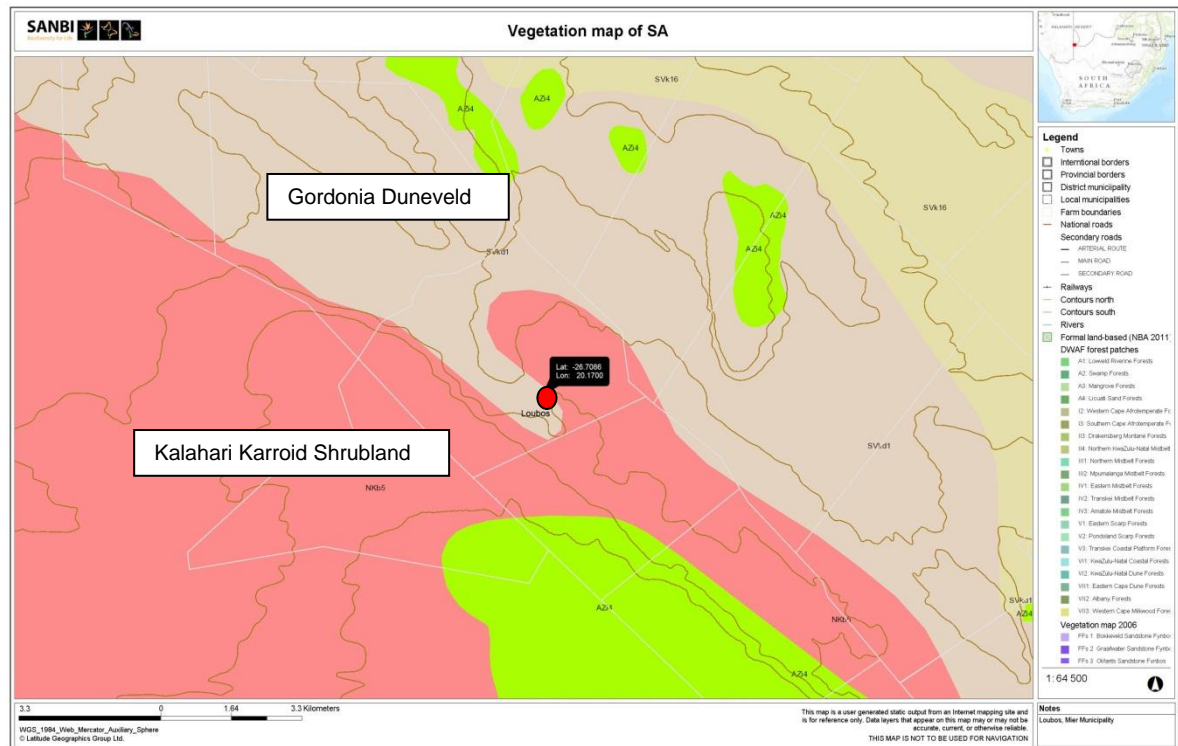


Figure 4: Vegetation map of SA, Lesotho and Swaziland (2006).

According to the *National list of ecosystems that are threatened and in need of protection* (GN 1002, December 2011), both *Gordonia Duneveld* and *Kalahari Karroid Shrubland* are classified as “Least Threatened”.

Please refer to Table 4 of the Biodiversity Assessment (**Appendix D2**) for a list of vegetation encountered on site.

One listed protected species (namely *Boscia albitrunca*) were encountered within the study area. These have been listed and mapped in the Biodiversity Assessment (Table 6, **Appendix D2**), as well as the Site Development Plans (**Appendix A1**).

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does 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:

- 5.1 Natural area
- 5.2 Low density residential
- 5.3 Medium density residential
- 5.4 High density residential
- 5.5 Informal residential^A

BASIC ASSESSMENT REPORT

- 5.6 Retail-commercial & warehousing
- 5.7 Light industrial
- 5.8 Medium industrial^{AN}
- 5.9 Heavy industrial^{AN}
- 5.10 Power station
- 5.11 Office/consulting room
- 5.12 Military or police base/station/compound
- 5.13 Spoil heap or slimes dam^A
- 5.14 Quarry, sand or borrow pit
- 5.15 Dam or reservoir
- 5.16 Hospital/medical centre
- 5.17 School
- 5.18 Tertiary education facility
- 5.19 Church
- 5.20 Old age home
- 5.21 Sewage treatment plant^A
- 5.22 Train station or shunting yard^N
- 5.23 Railway line^N
- 5.24 Major road (4 lanes or more)^N
- 5.25 Airport^N
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station^H
- 5.31 Landfill or waste treatment site
- 5.32 Plantation
- 5.33 Agriculture –
- 5.34 River, stream or wetland – Dry drainage channel
- 5.35 Nature conservation area
- 5.36 Mountain, koppie or ridge
- 5.37 Museum
- 5.38 Historical building
- 5.39 Protected Area
- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

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

If YES, specify and explain:	N/A
------------------------------	---------------------------------------

If any of the boxes marked with an "AN" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:	N/A
------------------------------	---------------------------------------

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

If YES, specify and explain:	N/A
------------------------------	---------------------------------------

6. 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?

Uncertain

If YES, explain:

Please see below

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

BASIC ASSESSMENT REPORT

Briefly explain the findings of the specialist:

According to Heritage Impact Assessment (**Appendix D3**), no archaeological resources were found on the north-western site, and eight Middle Stone Age (MSA) flakes and one MSA core were located on the south-eastern site.

Although three large clusters were located of MSA flakes and cores were along the southern edge of the southern site, this not part of this application, as it is only the formulization of the sites zoning, with no development/construction taking place, and therefore no impact on the archaeological aspects at this stage).

The impacts are therefore negligible, and no mitigation measures are proposed.

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

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

	NO
YES	

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT (Please refer to **Appendix E2** for proof of Advertisements and Site notices)

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;
- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
 - (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - (v) the municipality which has jurisdiction in the area;
 - (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
 - (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;
- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and
- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—

- (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
- (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
- (iii) the nature and location of the activity to which the application relates;
- (iv) where further information on the application or activity can be obtained; and
- (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

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

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application 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 this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

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

List of authorities informed:

The following authorities were notified of the application.

- SAHRA Northern Cape
- Northern Cape Department of Agriculture and Land Reform
- Department of Co-operative Governance, Human Settlements and Traditional Affairs
- Department of Environment and Nature Conservation
- Department of Water Affairs – Northern Cape
- Department of Roads and Public Works
- Siyanda District Municipality
- Mier Local Municipality

Please refer to **Appendix E1** for the I&AP list and proof of notifications.

List of authorities from whom comments have been received:

No comments were received during the initial round of public participation from the authorities.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or 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.

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

Has any comment been received from stakeholders?

NO

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

No comments were received during the initial Public Participation round

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, 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. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

No issues were raised by Interested and Affected Parties thus far. All potential issues have been identified by the EAP, specialists (Biodiversity and Heritage), town planners, engineers and landowner.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

N/A at this stage

2. 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

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) 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.

Alternative (preferred alternative)

Direct impacts:

Archaeological heritage

According to Heritage Impact Assessment (**Appendix D3**), no archaeological resources were found on the north-western site, and eight Middle Stone Age (MSA) flakes and one MSA core were located on the south-eastern site.

Although three large clusters were located of MSA flakes and cores were along the southern edge of the southern site, this not part of this application, as it is only the formulization of the sites zoning, with no development/construction taking place, and therefore no impact on the archaeological aspects at this stage).

The impact is therefore considered negligible, and highly unlikely.

Mitigation: No mitigation measures are recommended.

Biodiversity

Direct loss of vegetation type and associated habitat due to construction and operational activities:

- Impact on threatened or protected ecosystems

According to the Biodiversity Assessment (**Appendix D2**) no threatened or endangered species were recorded during the site visit. However, it must be noted that the vegetation type is considered "Least Threatened".

The proposed development will have a permanent, but localised impact on wildlife and avifauna. Many animal and bird species associate with large *Boscia albitrunca* trees and the removal of mature trees of these species will have an impact on such wildlife (even though very localised).

Taking the above into account it is clear that the proposed project will have little impact on natural vegetation, but might impact on single protected plants. **The impact on threatened or protected ecosystems is thus rated as low.**

Mitigation:

- The proposed housing layout should take into account all mature indigenous tree species and should aim to minimise the impact on these. In addition it should also aim to minimise the impact on any other protected species that might be encountered on site. On-site micro- adjustment of the final lay-out must be done in order to minimise the impact on as many of the protected species as possible.
- Permits must be obtained for the removal of any protected species which cannot be avoided.
- All larger watercourses should be protected by a 32 m river corridor as per Siyanda EMF.
- Special habitats

The vegetation itself is not considered to belong to a threatened or protected ecosystem. However, shrubland in this area is classified as of high conservation priority within the Draft Siyanda EMF, but the specific site was given a very low sensitivity index in the same report. No special habitats, were encountered on site (e.g. quartz patches or broken veld), which could sustain significant smaller ecosystems.

There are no formal rivers on any of the proposed site, but two a seasonal stream runs just north of the western site (a 32 m corridor should be observed) and a larger drainage furrow runs just north of the eastern site (not impacted by the proposed development). One smaller furrow was also observed within the eastern site. Ideally this furrow should also be protected, but as it is relative small with very little associated riparian vegetation, it could also be incorporated within a storm water system.

It is considered unlikely that the proposed project will have a significant impact on special habitats if the impact mitigation recommendations are adhered to. **The impact is thus rated as low.**

Mitigation:

- Observe a 32 m corridor from the edge of the seasonal stream just north of the proposed western site
- Protect the smaller furrow within the eastern site or incorporate it into a storm water system.

- Corridors and/or conservation networks

Looking at the larger site and its surroundings it shows excellent connectivity with remaining natural veld in almost all directions. Corridors and natural veld networks are still relative unscathed (apart from road networks). However, very little natural veld remains on any of the proposed sites.

Because of the localised impact of the housing project and because the site are already impacted by the Loubos settlement it is highly unlikely that it will have any significant additional impacts on corridors or conservancy networks. The impact is thus rated as very low.

- Threatened or endangered species

No threatened or endangered species were recorded during the site visit, however, this does not rule out their presence as they may be subject to seasonable rainfall and may not have been observable during the time of the site visit, since the composition of the vegetation layers will fluctuates with seasonal rainfall. However, it must be noted that the vegetation type is considered "Least Threatened" and that this classification is based on plant species diversity and turnover as well as habitat transformation. The number of species per broad geographical levels for these biomes is low. It is therefore very unlikely that any red data species will be confined to the proposed site alone.

Taking the above into account it is highly unlikely that the proposed project will have a significant or long term effect on threatened or endangered species. The impact is thus rated as low.

- Protected Species

According to the Biodiversity Assessment (**Appendix D2**), one protected tree species in terms of the National Forests Act of 1998 (Act 84 of 1998) have been observed and might be impacted during the construction namely: *Boscia albitrunca* (Sheppard's tree), refer to Table 6 of **Appendix D2** for location data on the individual trees encountered.

In addition to the above the Northern Cape Nature Conservation Act 9 of 2009 (NCNCA) came into effect on the 12th of December 2011, which also provides for the sustainable utilization of wild animals, aquatic biota and plants. Schedule 1 and 2 of the act give extensive lists of specially protected and protected fauna and flora species in accordance with this act. Even though this study never intended to be full botanical assessment, a scan of significant species was done during the site visit, and though the author does not claim that all species were recorded, only one listed protected species in terms of NCNCA was encountered during the site visit. However, as a pre-cautionary measure all viable herb-, bulbs- and succulent plant species encountered within the footprint should be removed and replanted through a dedicated search and rescue operation.

Taking the above into account it is possible but unlikely that the project will have an impact on any of the protected species observed. The impact is thus rated as low (with mitigation).

Mitigation:

- Observe a 32 m corridor from the edge of the seasonal stream just north of the proposed site 3, which include almost all of the protected species encountered on this site.
- The proposed housing layout should take into account all mature indigenous tree species and should aim to minimise the impact on these. In addition it should also aim to minimise the impact on any other protected species that might be encountered

on site.

- As a pre-cautionary measure all viable herb-, bulbs- and succulent plant species encountered within the footprint should be removed and replanted through a dedicated search and rescue operation.
- Permits must be obtained for the removal of any protected species which cannot be avoided.

- Direct loss of vegetation

The vegetation itself is not considered to belong to a threatened or protected ecosystem. No special habitats were encountered on site. It is possible but unlikely that the proposed project will have an impact protected species. The proposed housing development will also have very little impact on vegetation, wildlife and avi-fauna.

Taking the above into account the direct impact on the environment is rated as low (with mitigation).

Mitigation: The following is some mitigation which will minimise the impact of the development location and operation.

- Observe a 32 m corridor from the edge of the seasonal stream just north of the proposed site 3, which include almost all of the protected species encountered on this site.
- The proposed housing layout should take into account all mature indigenous tree species and should aim to minimise the impact on these. In addition it should also aim to minimise the impact on any other protected species that might be encountered on site.
- Permits must be obtained for the removal of any protected species which cannot be avoided.
- As a pre-cautionary measure all viable herb-, bulbs- and succulent plant species encountered within the footprint should be removed and replanted through a dedicated search and rescue operation.
- Only existing access roads should be used for access to the terrain.
- Access roads must be clearly demarcated and access must be tightly controlled (deviations may not be allowed).
- Indiscriminate clearing of areas must be avoided (all remaining areas to remain as natural as possible).
- All topsoil (at all excavation sites) must be removed and stored separately for re-use for rehabilitation purposes. The topsoil and vegetation should be replaced over the disturbed soil to provide a source of seed and a seed bed to encourage re-growth of the species removed during construction.
- Once the construction is completed all further movement must be confined to the access tracks to allow the vegetation to re-establish over the excavated areas.
- Rehabilitation must be done after construction.

Visual and noise impacts

The activity will impact on the visual character of the area. The presence of construction plant during the construction phase will have a visual impact, but this will only be during the construction phase and is expected to have a low impact.

The activity will create some noise during the construction phase of the development. Noise mitigation measures will be dealt with in the EMP. With the mitigation measures, as described

in the EMP (**Appendix F**), the potential noise impacts are also expected to be negligible.

Indirect impacts:

According to the Biodiversity Assessment (**Appendix D2**), The following possible indirect impacts were associated with the proposed project:

- The possible impact on protected plant species as described in the “List of protected tree species” (GN 716 of 2012) and the “Protected Species” list (Schedule 2 of the NC Nature Conservation Act 9 of 2009).
- Establishment of a construction camp and site offices as well as labourers facilities.
- Temporary storage areas (e.g. pipe’s and fittings and concrete mixing material).
- Waste management

It is very likely that the proposed project will have indirect impacts. It is considered that indirect impacts will have a similar impact as direct impacts, which will lead to a cumulative effect on the environment. However, indirect impacts can be much reduced through good environmental control during construction. **On its own the impact is considered to be medium.**

Mitigation:

- Appoint a suitably experience ECO during the construction phase of the project.

Cumulative impacts:

The proposed activity could potentially contribute to the cumulative loss of ecological function and other biodiversity features on a regional basis. However, both vegetation types was classified as “Least Threatened”, No special habitats were encountered on site (e.g. quartz patches or broken veld), which could sustain significant smaller ecosystems. There are no formal rivers on the proposed site, but a number of drainage channels and small streams draining water from the slightly higher ground just west of Loubos drain rain water onto the relative flat area in the general location of the Loubos settlement. Although most of these drainage lines are basically storm water channels with little riparian vegetation they should still be seen as significant biodiversity features, which should be protected by adequate river corridors. The direct impacts will be permanent but localised, while indirect impacts can be much reduced through good environmental control.

The proposed project will thus have a permanent, but very localised impact. **On the whole the cumulative impact is considered to be low-medium.** With the implementation of impact minimisation actions the impact can easily be reduced to low.

3. 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 following is a summary of the potential impacts, and their ratings, after mitigation:

Construction phase.

Potential impacts on archaeological heritage – **Negligible, highly unlikely.**

Impact on threatened or protected ecosystems - **Low (negative), highly unlikely.**

Special habitats – **Very low (negative), highly unlikely.**

Corridors and/or conservation networks – **Very Low (negative), highly unlikely.**

Threatened or endangered species – **Low (negative), very unlikely.**

Protected species – **Low (negative), very likely, only during construction phase.**

Freshwater ecosystems – **Low (negative), probable, only during construction phase.**

Job creation – **Low (Positive), definite.**

Noise impact - **Negligible, definite, only during construction phase.**

Visual impact – **Low (negative), definite, during construction**

Operational Phase

Potential impacts on archaeological heritage – **Negligible**

Loss of vegetation and associated habitat - **Negligible**

Impact on threatened vegetation - **Negligible**

Freshwater ecosystems – **Negligible**

Job creation – **Low (Positive), definite**

Noise impact - **Negligible**

Visual impact – **Low (negative), definite, permanent**

Decommissioning

The project as proposed does not require 'decommissioning' or 'closure', as such the potential impacts thereof is considered irrelevant.

No-go alternative (compulsory)

According to the Biodiversity Assessment (**Appendix D2**), the "No-Go alternative" does not signify significant biodiversity gain or loss especially on a regional basis. However, it will ensure that none of the potential impacts above occur. The current status quo will remain and there will be no impact (even temporarily) on the vegetation, protected species or river corridors.

However, the no-go alternative will also mean that no new additional housing opportunities (a national, regional and local need) will be provided. No potential job opportunities will be provided during the construction phase, nor will any further opportunities be provided during the operational phase.

The local municipality and governments have a socio-economic responsibility to provide basic living. Over the long term the proposed project is likely to be one of the viable solutions with acceptable environmental impact.

BASIC ASSESSMENT REPORT

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

Is an EMPr attached?

YES

The EMPr must be attached as Appendix F.

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):

N/A

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:

The following is a list of recommended conditions and mitigation measures from a biodiversity and heritage perspective:

- All construction must be done in accordance with an approved construction and operational phase Environmental Management Plan (EMP), which must be developed by a suitably experienced Environmental Assessment Practitioner.
- A suitably qualified Environmental Control Officer must be appointed to monitor the construction phase in terms of the EMP and the Biodiversity study recommendations as well as any other conditions which might be required by the Department of Environmental Affairs.
- An integrated waste management system must be implemented during the construction phase.
- All rubble and rubbish (if applicable) must be collected and removed from the site to a suitable registered waste disposal site.
- All alien vegetation should be removed from the larger property.
- All efforts must be made to protect all mature indigenous trees within the proposed final footprint (and any other protected species that might be encountered on site). On-site micro- adjustment of the final erven must be done in order to minimise the impact on as many of the protected species as possible.
- Permits must be obtained for the removal of any protected species which cannot be avoided.
- As a pre-cautionary measure all viable herb-, bulbs- and succulent plant species encountered within the footprint should be removed and replanted through a dedicated search and rescue operation.
- Indiscriminate clearing of areas must be avoided (all remaining areas to remain as natural as possible).
- All topsoil (the top 15-20 cm at all excavation sites), must be removed and stored separately for re-use for rehabilitation purposes. The topsoil and vegetation should be replaced over the disturbed soil to provide a source of seed and a seed bed to encourage re-growth of the species removed during construction.
- Once the construction is completed rehabilitation must be implemented.
- No firewood should be collected on site. Adequate, safe, cooking equipment must be provided for workers at the construction site camp.
- Observe a 32 m corridor from the edge of the seasonal stream just north of the proposed western site, which include almost all of the protected species encountered on this site.
- Protect the smaller furrow within the eastern site or incorporate it into a storm water system.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information