

**Northern Cape Province
DEPARTMENT OF
ENVIRONMENT & NATURE
CONSERVATION**



**Porofensi Ya Kapa Bokone
LEFAPHA LA TIKOLOGO LE
TSHOMARELO YA TLHAGO**

BASIC ASSESSMENT REPORT

**PROPOSED LOW COST HOUSING
DEVELOPMENT, ASKHAM
NORTHERN CAPE**

| | | | |
|----------------------------|--|-------|-------------|
| Project applicant: | Mier Municipality | | |
| Business reg. no./ID. no.: | N/A | | |
| Contact person: | Ivan van Wyk | | |
| Postal address: | P.O. Box 178, Mier, 8811 | | |
| Telephone: | 054 5310928/9 | Cell: | |
| E-mail: | miermun@lantic.net | Fax: | 054 5310931 |

Prepared by:

| | | | |
|---|--|-------|--------------|
| Environmental Assessment Practitioner/Firm: | EnviroAfrica CC | | |
| Business reg. no./ID. no.: | CK 97 46008/23 | | |
| Contact person: | Clinton Geyser/Bernard de Witt | | |
| Postal address: | P.O. Box. 5367, Helderberg, 7135 | | |
| Telephone: | 021 851 1616 | Cell: | |
| E-mail: | Clinton@enviroafrica.co.za | Fax: | 086 512 0154 |

(For official use only)

File Reference Number:

Application Number:

Date Received:

| |
|--|
| |
| |
| |

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):

- 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

Project description

It is proposed that Portion 1 of Farm 139, Gordonia RD, Kameelduin, Askham, be rezoned and subdivided for the development of serviced low cost housing, including associated infrastructure

The property (Portion 1 of Farm 139, 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 off the R31, and is located north of Kameelduin, Askham, directly adjacent to the sportsgrounds. The site coordinates are as follows: S 26° 58.650', E 20° 46.180'.

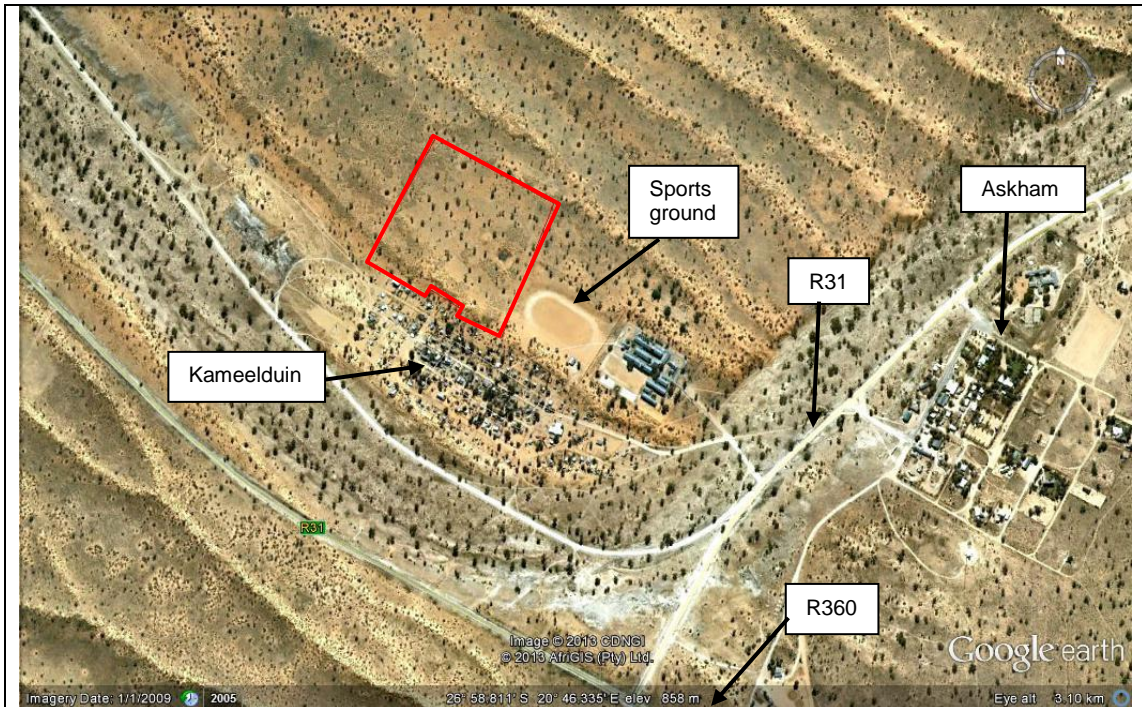


Figure 1: Aerial view of the site. The proposed site is indicated by the red polygon.

The proposed development will be over 8.3ha and 107 new development stands are proposed, 102 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 does not directly link to any major national or regional roads, but has been designed in such a way to integrate with the existing road infrastructure of Kameelduin, Askham. At this stage, all roads in the immediate vicinity are unpaved and this configuration is expected to be continued throughout the proposed development at this stage.

- **Sewerage**

A septic tank will be installed for each household/erven 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 Askham (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. In the central section of the development, a large area has been left vacant to accommodate any potential future water retention.

- **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 two (102) land units created will be given this zoning with the objective being residential opportunity in Askham. This zoning will cover 3.9ha of the study area with each unit having an average size of 390m². This will constitute 47.5% 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). One (1) land unit created will be given this zoning with the objective being business opportunity in Askham. This zoning will cover 1295m² of the study area constituting 1.6% 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). One (1) unit of this zoning will be provided for within the proposed development. The unit will be 704m² in size, representing 0.8% of the total development.

- **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. The unit will be 714m² in size, representing 0.9% 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). One (1) unit of this zoning will be provided for within the proposed development. The unit will be 1ha in size, representing 12% 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). One (1) unit of this zoning will be provided for within the proposed development, constituting the internal road network of the proposed development. The unit will be 3.1ha in size, representing 37% of the total development. The internal road network of the proposed development may be seen in the Detail Layout.

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. Due to the parallel dunes and present layout of Askham and Kameelduin, the proposed site is the only feasible site. According to the Town Planning Motivational report (Appendix D1), the development placement has been done in such a way to stimulate integration possibilities between the eastern and western segments of Askham in the future.

Expansion of the town to the west of Kammelduin would mean the new development would be located even further from Askham, resulting in “urban sprawl” and would therefore not be centralized and integrated.

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 8.3ha and 107 new development stands are proposed, 102 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) and Public Open Space zone are included.

The location of the graves on site has been considered, and these will be located within the Public Open Space.

The layout has also taken the location of mature trees in to account, thus minimising the amount of trees impacted/having to be removed.

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

The proposed development will be over 8.1ha and 103 new development stands are proposed, 102 of which are single residential erven, in response to the growing housing need in the municipality. One stand will for Transport Zone (roads).

This layout has a similar layout to the preferred layout, taking the graves and mature trees on

site into account.

However, no allowance has been made for business or institutional land-uses.

Alternative 1 is the preferred layout as it not only provides 102 residential opportunities, it also provides a business zone opportunity as well as a site for a school/crèche, and for a Place of Worship, 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)

Alternative S2 (if any)

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
- End point of the activity

Alternative S2 (if any)

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

Alternative S3 (if any)

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

Latitude (S):

Longitude (E):

| | | | |
|-----|---------|-----|---------|
| 26° | 58.650' | 20° | 46.180' |
| 26° | 58.650' | 20° | 46.180' |
| ° | ' | ° | ' |

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.

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)

| |
|------------------------------|
| Size of the activity: |
| 83000m ² (8.3ha) |
| 81000m ² (8.1ha) |
| m ² |

| |
|--------------------------------|
| Length of the activity: |
| |
| |

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

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

BASIC ASSESSMENT REPORT

Alternative A3 (if any)

m

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

Alternative:

Size of the site/servitude:

Alternative A1 (preferred activity alternative)

m²

Alternative A2 (if any)

m²

Alternative A3 (if any)

m²

5. SITE ACCESS

Does ready access to the site exist?

NO

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

Approximately
275m

Describe the type of access road planned:

The proposed development does not directly link to any major national or regional roads, but has been designed in such a way to integrate with the existing road infrastructure of Kameelduin, Askham. At this stage, all roads in the immediate vicinity are unpaved and this configuration is expected to be continued throughout the proposed development at this stage.

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);
- 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

BASIC ASSESSMENT REPORT

| | |
|---|--------------------------|
| What is the expected capital value of the activity on completion? | Approximately R7 490 000 |
| What is the expected yearly income that will be generated by or as a result of the activity? | Unknown at this stage |
| Will the activity contribute to service infrastructure? | YES |
| Is the activity a public amenity? | YES |
| How many new employment opportunities will be created in the development phase of the activity? | ± 65 |
| What is the expected value of the employment opportunities during the development phase? | Unknown at this stage |
| 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? | Unknown at this stage |
| What is the expected current value of the employment opportunities during the first 10 years? | Unknown at this stage |
| What percentage of this will accrue to previously disadvantaged individuals? | Unknown at this stage |

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 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 107 new development stands in Askham, 102 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.

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

BASIC ASSESSMENT REPORT

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 65 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? <i>See below</i> | YES | NO |
| 8. | Will the proposed land use / development compromise the "urban edge"? | YES | |
| 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 Askham.</p> <p>No person's rights are expected to be negatively affected by the proposed development. The activity is expected to have a general positive impact on the residents of the Askham area.</p> <p>The proposed development will lead to the extension of the Urban edge. However, this is considered necessary as there is very little to no opportunities for "infill". The development of the town of Askham is also influenced by the parallel sand dunes, limiting the direction of the town's expansion.</p> | | |

| BENEFITS: | | | |
|------------------|---|-----|--|
| 1. | Will the land use / development have any benefits for society in general? | YES | |

BASIC ASSESSMENT REPORT

| | | |
|----|--|------------|
| 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. | <p>Will the land use / development have any benefits for the local communities where it will be located?</p> | <p>YES</p> |
| 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 | |
| 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?

| | |
|-----|--|
| YES | |
|-----|--|

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

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

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

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?

| | |
|--|----|
| | NO |
|--|----|

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

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

| | |
|--|----|
| | NO |
|--|----|

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

BASIC ASSESSMENT REPORT

11(b) Liquid effluent

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

| | |
|-----|-------------------------------------|
| YES | <input checked="" type="checkbox"/> |
|-----|-------------------------------------|

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

| |
|--|
| 15.5m ³ per household per month |
|--|

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

| | |
|-------------------------------------|----|
| <input checked="" type="checkbox"/> | 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?

| | |
|-------------------------------------|----|
| <input checked="" type="checkbox"/> | 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?

| | |
|-------------------------------------|----|
| <input checked="" type="checkbox"/> | NO |
| 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?

| | |
|-------------------------------------|----|
| <input checked="" type="checkbox"/> | NO |
| 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 checked="" type="checkbox"/> the activity will not use water |
|-----------|---|--------------------------------------|---|--------------------------------|---|

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

| |
|--------|
| litres |
|--------|

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

| | |
|-------------------------------------|----|
| <input checked="" type="checkbox"/> | 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?

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 |
|------|-------------|-------------|-------------|--------------|-------------|------------------|

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 |
|------|-------------|-------------|-------------|--------------|-------------|------------------|

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 |
|------|-------------|-------------|-------------|--------------|-------------|------------------|

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 - **The town of Askham is located within the parallel dune fields typical of the Kalahari. The topography of the proposed site is typical undulating Duneveld landscape. The site is located between two sets of parallel dunes,**

2.8 Dune

2.9 Seafront



Figure 2: General view of the site, taking from the dune between the proposed site and Kammelduin (southern dune), looking north east. The site is located between two parallel dunes, with the dune bordering the site to the north-east visible in the top of the image. The dunes will not be impacted by the development, except for the access road from Kameelduin which will cut through the dune.

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).

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), in accordance with the 2006 Vegetation map of South Africa, Lesotho and Swaziland (Mucina & Rutherford, 2006) (see figure 2 below) two broad vegetation type is expected in the vicinity and its immediate surroundings, namely Southern Kalahari Mekkacha and Gordonia Duneveld. However, only Southern Kalahari Mekkacha is expected on the proposed location.

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

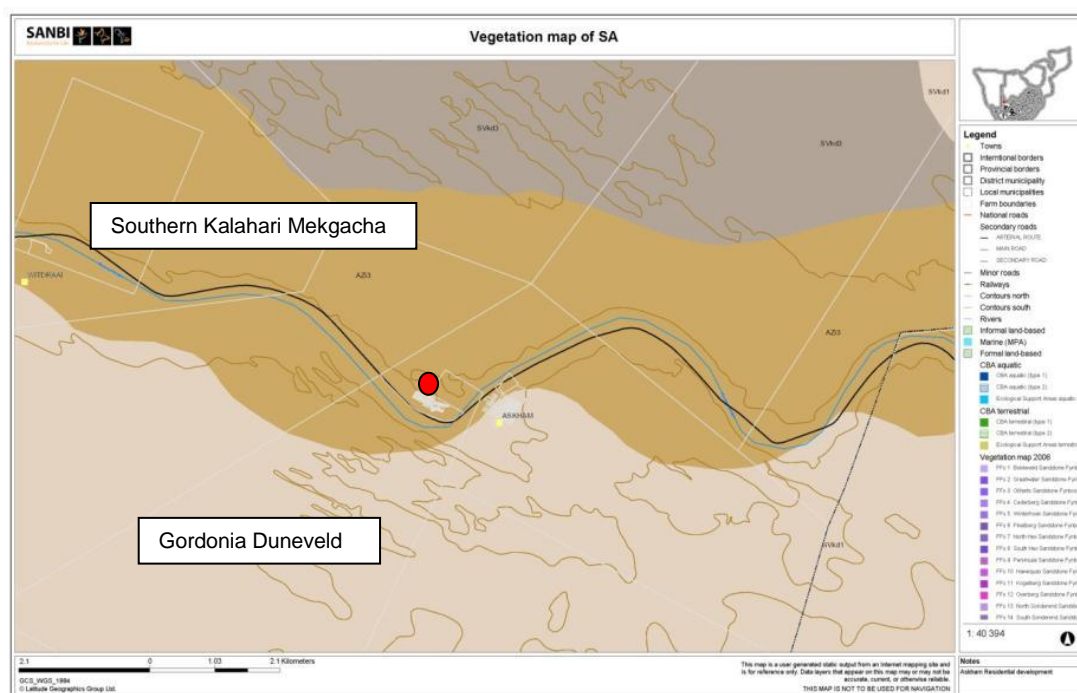


Figure 3: Vegetation map of SA, Lesotho and Swaziland (2006).

However, according to the Biodiversity Assessment (Appendix D2), the vegetation

encountered did not conform to this vegetation type but rather showed the typical species composition and physical character expected of *Gordonia Duneveld*.

The proposed larger site is located within a parallel dune landscape and overlaps two dunes as well as the interdune straaften (with most of the proposed site located within the interdune straaften). The vegetation encountered can be described as open sparse woodland (larger trees scattered throughout) dominated by a grassy bottom layer.

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

Significant vegetation identified includes three listed protected species that were encountered within the proposed site. These include the *Acacia erioloba*, *Boscia albitrunca* and *Acacia haematoxylon*. These have been listed and mapped in the Biodiversity Assessment.

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
- 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 –
- 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.

BASIC ASSESSMENT REPORT

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

If any of the boxes marked with an "A^H" 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^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?

| |
|------------|
| [REDACTED] |
| 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.

Briefly explain the findings of the specialist:

According to Heritage Impact Assessment (**Appendix D3**), no archaeological sites or other prehistoric resources were found during a foot survey of the proposed site.

However, a total of eight graves were identified. Six of the graves are located around a central point (26°58'40.27"S; 20°46'11.62"E), whilst two individual graves (No 7 & 8) lie some distance from the main cluster.

The cluster of six graves lies in two rows of three with a northwest/southeast orientation and are described as following.

Grave 1: The only true grave with the edges marked out with cemented bricks. The shale headstone is broken and very weathered, leaving no visible information.

Grave 2: The first of the cairn burials, this grave is covered with calcrete stones. One loose piece of shale was located on the grave. It might have formed part of the headstone, but is very weathered.

Grave 3: A cairn burial, covered with calcrete stones.

Grave 4: Also a cairn burial, this grave has an almost legible headstone. The date on the headstone is 10172 with the phrase "My hulp is van die Here wat Hemel..."

Grave 5: A cairn burial, covered with calcrete stones.

Grave 6: A cairn burial, covered with calcrete stones.

Grave 7: A cairn burial, covered with calcrete stones. This small grave, possibly that of a child, lie southeast of the central cluster.

Grave 8: A cairn burial, covered with calcrete stones. This small grave, also possibly that of a child lies to the southwest of the central cluster of graves.

The graves have been identified by the planners and provision for them has been made in the site development plans. These will be located within the area rezoned as Public Open Space.

The Heritage Impact Assessment (**Appendix D3**) has recommended the following mitigation measures:

- That fencing around the burial ground be put in place, particularly prior to construction, with signage explaining the significance of the site.
- That research into the relationship of the local community with the burials be investigated.
- There is always the possibility of encountering human remains during construction. Human Remains, which are indicated by the presence of light brown to dark brown bones either whole or in fragments, may include artefacts. Burial places fall under the jurisdiction of SAHRA and must be approached using the guidelines set out in the NHRA 1999 Section 36. If human remains are found, please follow these guidelines:
 - Leave the remains in place;
 - Cordon off the area;
 - Contact SARHA (021 462 4502);
 - Contact an archaeologist;
 - Once an archaeologist has examined the find, the SA Police services and state
 - pathologist must be contacted to report human remains;

BASIC ASSESSMENT REPORT

- (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.

BASIC ASSESSMENT REPORT

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?

YES

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 sites or other prehistoric resources were found during a foot survey of the proposed site.

However, a total of eight graves were identified. These have been identified by the planners and provision for them has been made in the site development plans. These will be located within the area rezoned as Public Open Space.

Mitigation:

The Heritage Impact Assessment (**Appendix D3**) has recommended the following mitigation measures:

- That fencing around the burial ground be put in place, particularly prior to construction, with signage explaining the significance of the site.

- That research into the relationship of the local community with the burials be investigated.
- There is always the possibility of encountering human remains during construction. Human Remains, which are indicated by the presence of light brown to dark brown bones either whole or in fragments, may include artefacts. Burial places fall under the jurisdiction of SAHRA and must be approached using the guidelines set out in the NHRA 1999 Section 36. If human remains are found, please follow these guidelines:
 - Leave the remains in place;
 - Cordon off the area;
 - Contact SAHRA (021 462 4502);
 - Contact an archaeologist;
 - Once an archaeologist has examined the find, the SA Police services and state pathologist must be contacted to report human remains;
 - If the remains are found to be a legitimate burial or precolonial burial, an emergency exhumation permit will be issued by SAHRA or HWC; and
 - If a crime is suspected, a police docket will be opened.

The HIA recommended that there are no archaeological reasons for the Low Cost Housing Development on Portion 1 of Farm 139, Askham, to be delayed.

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".

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.**

Mitigation:

- The proposed housing layout should be placed within the inter-dune straaften alone, avoiding the dunes to the east and west of the straaften. In doing this the impact on *Boscia albitrunca* is almost totally negated and the possible impact of wind erosion will be reduced.
 - The natural vegetation on the dunes must be protected during the construction activities (erosion control).
 - All efforts must be made to protect all the protected 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 tree species as possible.
 - Permits must be obtained for the removal of any protected species which cannot be avoided.
- Special habitats

According to the Biodiversity Assessment (**Appendix D2**), the vegetation itself is not considered to belong to a threatened or protected ecosystem. No special habitats, were encountered on site (e.g. quartz patches or broken veld), which could sustain significant

smaller ecosystems. The Kuruman River is located just west and south of the proposed site location, but it is highly unlikely that the proposed project will have any additional impact on the river system or its ecology.

It is considered highly unlikely that the proposed project will have any impact on special habitats. **The impact is thus rated as very low.**

- 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).

The localised impact of the housing project makes it highly unlikely that it will have a significant effect on corridors or conservancy networks. **The impact is thus rated as 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 the savannah biome is relative 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**), three protected tree species in terms of the National Forests Act of 1998 (Act 84 of 1998) have been observed and are likely to be impacted during the construction namely: *Acacia erioloba* (Camel thorn) *Boscia albitrunca* (Sheppard's tree) and *Acacia haematoxylon* (Grey Camelthorn), refer to Table 6 for location data on the individual trees encountered. By placing the proposed housing development within the inter-dune straaen not only will wind erosion be curtailed, but the impact on both *Acacia haematoxylon* and *Boscia albitrunca* will be almost negated (as both of these species was only observed on the dunes in this specific site. However, it remains very likely that at least some of the *Acacia erioloba* within the straaen might be impacted by the project.

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, no 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 very likely that the proposed project will have an impact protected species (especially *Acacia erioloba*). **The impact is thus rated as medium** (which can be reduced with mitigation).

Mitigation:

- The proposed housing layout should be placed within the inter-dune straaen alone, avoiding the dunes to the east and west of the straaen. In doing this the impact on *Boscia albitrunca* is almost totally negated and possible impact of wind erosion will be reduced.
- The natural vegetation on the dunes must be protected during the construction activities (erosion control).
- All efforts must be made to protect all the protected 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 tree species as possible.
- 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.

Freshwater ecosystems

No wetland or river systems were encountered on the site, although the Kuruman River is located to the south and west of the proposed site (at least 300m, with at least one dune system and the township of Kameelduin between the site and the Kuruman River). It is highly unlikely that the proposed project will have any additional significant impacts on the river system or its ecology. **The impact is thus rated as negligible.**

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:

- Erosion (notably wind erosion) – The sandy dunes are very susceptible to disturbance and it would be imperative that the dunes are stabilised immediately after construction.
- 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. No wetland or river systems were encountered on the site. But it is highly unlikely that the proposed project will have any additional significant impacts on the river system or its ecology. 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 medium. With the implementation of impact minimisation actions the impact could even 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 – **Low (negative), unlikely.**

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

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

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

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

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

Freshwater ecosystems – **Negligible, highly unlikely, 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.
- A suitably qualified ECO or botanist must inspect the final site with the aim of identifying any protected plant species listed in the NCNCA. Should any protected or specially protected plant be located within the final footprint, an application for approval must be obtained from the DAFF, before any work is done on the 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.
- The natural vegetation on the dunes must be protected during the construction activities (erosion control).
- 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 efforts must be made to protect all the mature protected 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 tree species 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 all further movement must be confined to the access roads to allow the vegetation to re-establish over the excavated areas.

BASIC ASSESSMENT REPORT

- Rehabilitation must include sand stabilisation methods to protect the open sandy areas against wind erosion.
- Adequate measures must be implemented to ensure against erosion.
- No firewood should be collected on site. Adequate, safe, cooking equipment must be provided for workers at the construction site camp.
- Fencing around the burial ground must be put in place, particularly prior to construction, with signage explaining the significance of the site.
- Research into the relationship of the local community with the burials be investigated.
- If human remains are found, please follow these guidelines:
 - Leave the remains in place;
 - Cordon off the area;
 - Contact SAHRA (021 462 4502);
 - Contact an archaeologist;
 - Once an archaeologist has examined the find, the SA Police services and state pathologist must be contacted to report human remains;
 - If the remains are found to be a legitimate burial or precolonial burial, an emergency exhumation permit will be issued by SAHRA or HWC; and
 - If a crime is suspected, a police docket will be opened.

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