

BASIC ASSESSMENT REPORT



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Department:
Environment & Nature Conservation
NORTHERN CAPE PROVINCE
REPUBLIC OF SOUTH AFRICA

Private Bag X6102, Kimberley, 8300, Metlife Towers, T-Floor, Tel: 053 807 7300, Fax: 053 807 7328

Project applicant:	Khai-Ma Local Municipality		
Business reg. no. /ID. no.:			
Contact person:	Mr. Alfredo Green		
Postal address:	P.O. Box 108, Pofadder, 8890		
Telephone:	054 993 1017	Cell:	
E-mail:	green@khaima.gov.za	Fax:	054 933 0252

Prepared by:

Environmental Assessment Practitioner/Firm:	EnviroAfrica CC		
Business reg. no. /ID. no.:	CK 97 46008/23		
Contact person:	Emile Esquire / Bernard de Witt		
Postal address:	P.O. Box 5367, Helderberg, 7135		
Telephone:	021 851 1616	Cell:	082 448 9991
E-mail:	emile@enviroafrica.co.za bernard@enviroafrica.co.za	Fax:	086 512 0154

(For official use only)

File Reference Number:

Application Number:

Date Received:

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

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of 07 April 2017. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of “not applicable” in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

SECTION A: ACTIVITY INFORMATION

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

YES

NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. ACTIVITY DESCRIPTION

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

It is proposed that the remainder of Erf 1077, Pella be rezoned and sub-divided to accommodate one hundred and eighteen (118) residential units and associated infrastructure. The property is approximately 11ha in size. The site is currently vacant with some informal structures to the northern part of the site, and also covered with some Kameeldoring trees (*Vachellia erioloba*). The current zoning on the property is zoned Undetermined (Remainder of Erf 1077). The newly proposed zonings will be Residential I (townhouses).

Services:

The proposed housing development will require water for construction and domestic water use, electricity, sewage reticulation system, roads, and solid waste removal. The services to the proposed development are described in the Services Report (Appendix D3).

Roads and access:

Internal roads shall be 6m in width consisting mainly of access roads to residential units. Roads will be black top. There will be direct access from the existing Pella Road. The entrance will be controlled by the construction team.

Water:

The existing Municipal reservoir located in Pella has a capacity of 350kℓ. The development of a 360kℓ storage reservoir is proposed that will provide enough storage for the current demands and accommodate the new development of 118 plots /residential units. For the bulk storage capacity to be able to accommodate the new development, the construction of a 360kℓ storage reservoir is required. Internal water pipes shall be Ø 75mm and Ø 90mm uPVC Class 9, connected to the existing Ø 100mm municipal bulk water supply line running along the northern boundary. Installation of an additional pipeline from the reservoir to the area of the new development. Please refer to Appendix D3 for the Services Report. A pipeline with a diameter of at least 110mm be provided directly from the reservoir to the new development area. The development is expected to generate an average flow of 3.5 l/s. The existing Municipal reservoir located in Pella has a capacity of 350kℓ. In addition, the existing water Treatment Plant located in Pelladrift will be sufficient to provide water for the towns of Pella, Pofadder and Aggeneys.

Sewerage:

There is currently no sewage reticulation system. The development will require a sewage reticulation network, including house connections and a local septic tank. The internal sewer system will consist of Ø 200mm uPVC Class 34 sewer pipes for general reticulation with Ø 110mm uPVC Class 34 house connections. The development is expected to discharge an estimated peak sewage flow of 1.53 l/s that will flow into a septic tank. Municipal services will be required for the emptying of the sewer tank once the development is operational. The sewerage disposal system will consist of

internal sewage reticulation systems as well as a sewer tank. The municipality will empty the septic tank on a regular basis once approved.

Solid waste:

Solid waste will be collected and handled by the municipality as this development falls within the urban edge and the general area of service by the municipality.

Stormwater:

Storm water run-off will be handled overland and accommodated within the proposed roads. Storm water will therefore generally still follow current drainage paths to existing infrastructure. Areas at risk of erosion due to storm water run-off within the site will be suitably stabilised to prevent any erosion damage that might occur.

Electricity:

The Remainder of Erf 1077 in Pella is an undivided stand and thus was not included in the electrical reticulation master planning. A new electrical reticulation line will be installed.

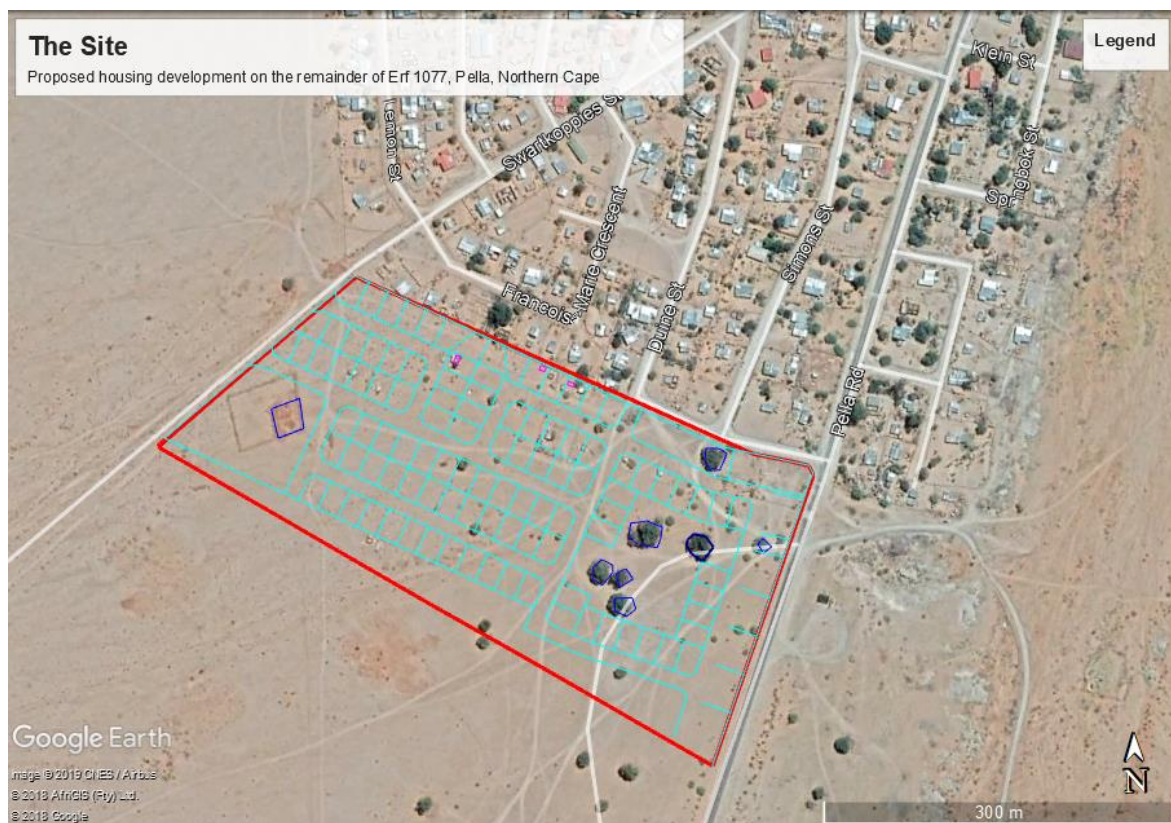


Figure 1: Aerial view of the site. Remainder of Erf 1077 depicted by the red polygon. Blue polygons resembles the Kameeldoring trees on site and the blue squares indicates the proposed subdivided erven.

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

Listed activity as described in GN 327, 325 and 324	Description of project activity
<p><u>GN 983 (Item 27):</u> The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>The clearance of an area of approximately 11 hectares of indigenous vegetation will be cleared to allow for the proposed development of 118 residential units on Remainder Erf 1077, Pella.</p>
<p><u>GN 985 (Item 4):</u> The development of a road wider than 4 metres with a reserve less than 13,5 metres.</p> <p>g. Northern Cape i. <u>In an estuary:</u> ii. <u>Outside urban areas:</u> (aa) A protected area identified in terms of NEMPAA, excluding disturbed areas; (bb) National Protected Area Expansion Strategy Focus areas; (cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; (dd) Sites or areas identified in terms of an international convention; (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; (ff) Core areas in biosphere reserves; (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas; or (hh) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or iii. <u>Inside urban areas:</u> (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a</p>	<p>Internal roads shall be 6m in width consisting mainly of access roads to residential units. Roads will be black top. There will be direct access from the existing Pella Road.</p>

conservation purpose; or (cc) Seawards of the development setback line or within urban protected areas.	
<p><u>GN 985 (Item 12):</u></p> <p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>g. Northern Cape</p> <p>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>ii. Within critical biodiversity areas identified in bioregional plans;</p> <p>iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; or</p> <p>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning.</p>	<p>The clearance of an area of approximately 11 hectares of indigenous vegetation will be cleared to allow for the proposed housing development.</p>

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

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

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

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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.

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

a) Site alternatives

No other site alternatives were considered.

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

In the case of linear activities:

Alternative:

Alternative S1 (preferred)

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

Alternative S2 (if any)

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

Alternative S3 (if any)

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

Latitude (S):

Longitude (E):

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

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

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>It is proposed that the remainder of Erf 1077, Pella, be rezoned and sub-divided to accommodate one hundred and eighteen (118) residential units, including associated infrastructure. The property is approximately 11ha in size.</p> <p>The site is currently vacant with some informal structures to the northern part of the site, and covered with some Kameeldoring trees (<i>Vachellia erioloba</i>). The mature Kameeldoring trees will remain on site and would be used as some open space. The position of each dwelling will be micro-sited to accommodate the individuals of <i>Vachellia erioloba</i> where possible.</p> <p>The current zoning of the property is Undetermined (Remainder of Erf 1077). The newly proposed zonings will be Residential I (townhouses).</p> <p>Internal roads shall be 6m in width consisting mainly of access roads to residential units. Roads will be black top. There will be direct access from the existing Pella Road.</p> <p>The coordinates of corner points of study area/ site are:</p> <p>1) 29°2'18.89" S 19°8'54.67" E 2) 29°2'23.31" S 19°8'48.58" E 3) 29°2'32.58" S 19°9'5.27" E 4) 29°2'24.50" S 19°9'8.76" E</p>	29°2'25.31" S	19°8'59.15" E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>For the alternative layout, it is proposed that the remainder of Erf 1077, Pella be rezoned and sub-divided to accommodate one hundred and eighteen (118) residential units, including associated infrastructure. The property is approximately 11ha in size.</p> <p>The layout was not preferred since the Kameeldoring trees (<i>Vachellia erioloba</i>) on site would be removed completely, whereas in the preferred alternative several Kameeldoring trees (<i>Vachellia erioloba</i>) will be protected. The position of each dwelling must be micro-sited to accommodate the individuals of <i>Vachellia erioloba</i> where possible. Please refer to Appendix C2 for the site layout.</p> <p>There are no environmental gains or positive environmental impacts compared to the preferred alternative.</p>	29°2'25.31" S	19°8'59.15" E
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

No technology alternatives were considered.

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

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

N/A

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

e) No-go alternative

This would mean that no-development would take place and the proposed site will remain as is. No additional housing opportunities will be provided.

Although this option would result in no potential negative environmental impacts, the social benefits from implementing the activity would not be achieved.

The no-go option would only have been recommended if it were found that the construction of the proposed development on this site or in this area might potentially cause substantial detrimental harm to the environment.

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

Alternative A1¹ (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

11 ha
m ²
m ²

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Length of the activity:

m

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

Alternative A2 (if any)	m
Alternative A3 (if any)	m

b) 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)	m ²
Alternative A2 (if any)	m ²
Alternative A3 (if any)	m ²

4. SITE ACCESS

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

Describe the type of access road planned:

The proposed site will be accessed via Pella Road. Please see figure 1 and Appendix C for the site layout.

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.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

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

6. LAYOUT/ROUTE PLAN

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

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);
- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

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

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

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

8. SITE PHOTOGRAPHS



Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

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

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
<p>The proposed site on Erf 1077 is currently zoned 'undetermined'. A rezoning and subdivision land use application were submitted to the local municipality to allow for the proposed construction of residential houses within Pella. The site will be zoned Residential 1 once the rezoning and subdivision application has been finalised. Some erven will be used as Open Space and is also where some Kameeldoring trees (<i>Vachellia erioloba</i>) are located on site (see Appendix C).</p> <p>The rezoning of the proposed site has not been finalised yet, however, the general plan had previously been submitted to the surveyor general. This approval and township were however never finalised, hence the Township Establishment Process and the EIA need to be applied for. Please refer to figure 2 below.</p>			
<div style="display: flex; justify-content: space-between;"> <div style="width: 70%;"> <p style="text-align: center;">ArcGIS Web Map</p>  </div> <div style="width: 25%; text-align: right;">  <p>Department of Rural Development and Land Reform Chief Surveyor General Property Search (April 2018 Version) April 11, 2019</p> <p>Legend</p> <p> Erven</p> </div> </div>			
<p>Figure 2: A view of the site (Erf 1077) which will be rezoned and subdivided to accommodate the 118 residential dwellings on site. The mature Kameeldoring trees will not be removed from site and will be conserved. Also see figure 1 and Appendix C for the site layout.</p>			

2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
<p>The Northern Cape Provincial Development Framework (2011), places a big emphasis on providing adequate housing opportunities with associated services such as electricity, bulk engineering infrastructure, water, and health facilities.</p> <p>The Integrated Development Plan of Khai-Ma Local Municipality states that there must be integration between commercial and residential land uses, close to bulk engineering infrastructure. Another objective of the municipality's IDP is to formalize existing informal housing occurring at Pella; and prevent further informal settlements.</p>			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
<p>The proposed site is located within the urban edge of the Town of Pella and is surrounded by residential land uses immediately to the north of the site.</p>			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
<p>The Integrated Development Plan of Khai-Ma Local Municipality states that there must be integration between commercial and residential land uses, close to bulk engineering infrastructure. Another objective of the municipality's IDP is to formalize existing informal housing occurring at Pella; and prevent further informal settlements.</p>			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
Unknown			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
No EMF was identified.			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
Unknown			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
<p>The Integrated Development Plan of Khai-Ma Local Municipality's objective is to formalize existing informal housing occurring at Pella; and prevent further informal settlements. This NEMA EIA Application will allow for the establishment of approximately 118 residential units and associated infrastructure in Pella.</p>			

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4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
<p>Housing and shelter are a basic human need and the Constitution of South Africa guarantees every citizen that right. In addition, the IDP of the local municipality identified the shortage of formal residential dwellings (housing) and associated infrastructure. It is therefore one of the objectives of the municipality's IDP is to formalize existing informal housing occurring at Pella; and prevent further informal settlements.</p>			
5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
<p>Additional capacity will be created for the proposed development.</p> <p>The proposed housing development will require water for construction and domestic water use, electricity, sewage reticulation system, roads, and solid waste removal.</p> <p>There is currently no sewage reticulation system. The development will require a sewage reticulation network, including house connections and a local sewer tank. Please refer to Appendix D3 for the Services Report.</p>			
6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)	YES	NO	Please explain
<p>Khai-Ma Local Municipality's IDP is to formalize existing informal housing occurring at Pella; and prevent further informal settlements. Additional capacity will be created for the proposed development. The proposed housing development will require water for construction and domestic water use, electricity, sewage reticulation system, roads, and solid waste removal. There is currently no sewage reticulation system. The development will require a sewage reticulation network, including house connections and a local sewage tank. Please refer to Appendix D3 for the Services Report.</p>			
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
<p>However, additional housing opportunities is of national importance in terms of the National Development Plan.</p>			

8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)	YES	NO	Please explain
The site is located within the urban edge of Pella and situated close to the existing residential area to the north of the proposed site and is situated between Swartkoppies Street and Pella Road for easy access to the proposed site. The site has no natural watercourses or freshwater resources located within 32m of the proposed site. The area to the north of the proposed site is characterised by existing residential dwellings, and some informal dwellings. The proposed development will contribute towards the service infrastructure of the town of Pella.			
9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain
Although the proposed development will result in the loss of vegetation over the entire site, the site is not in an ecologically and botanically sensitive area. Erf 1077 is severely degraded, overgrazed and trampled and the effect of the current drought has exacerbated the poor vegetation cover of the area. However, the development of the site will create much needed housing opportunities, especially affordable housing, which is seen as a priority. Leaving the site undeveloped (no-go option), will not create this housing opportunities, and will not create jobs during the construction and operational phases.			
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain
No significant negative environmental impacts are expected by the proposed development.			
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
Not necessarily, but the town of Pella has a housing backlog and more formal housing units would be required in the future. Housing is a basic human need.			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
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 Kakamas area.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
The development is located within the urban edge, and is considered in-fill development. Please see figure 2 above.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
15. What will the benefits be to society in general and to the local communities?	Please explain		
The project will provide much needed housing opportunities, and provide job opportunities during the construction, and possibly, the operational phase. Improved surface infrastructure.			

16. Any other need and desirability considerations related to the proposed activity?	Please explain
N/A	
17. How does the project fit into the National Development Plan for 2030?	Please explain
Housing opportunities is a local, provincial and national need.	
18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.	
<p>The general objectives of Integrated Environmental Management have been taken into account through the following:</p> <ul style="list-style-type: none"> - The actual and potential impacts of the activity on the environment, socio-economic conditions and cultural heritage have been identified, predicted and evaluated, as well as the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impact, maximizing benefits and promoting compliance with the principles of environmental management – <i>please refer to Section D below.</i> - The effects of the activity on the environment have been considered before actions taken in connection with them – <i>alternatives have been considered and investigated (please refer to Section A below).</i> - Adequate and appropriate opportunity for public participation was ensured through the public participation process – <i>please refer to Section C for the public participation information, including the list of identified Interested and Affected parties, as well as the methods for identifying and informing I&APs of the application and proposed activity.</i> <p>The environmental attributes have been considered in the management and decision-making of the activity – <i>an EMPr has been included (Appendix G) with the proposed activity and must adhere to the requirements of all applicable state Authorities.</i></p>	
19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.	
<p>The principles of environmental management as set out in section 2 of NEMA have been taken into account. The principles pertinent to this activity include:</p> <ul style="list-style-type: none"> - People and their needs have been placed at the forefront while serving their physical, psychological, developmental, cultural and social interests – <i>the proposed activity will have a beneficial impact on people, as it will provide much needed additional housing opportunities.</i> - Development must be socially, environmentally and economically sustainable. Where disturbance of ecosystems, loss of biodiversity, pollution and degradation, and landscapes and sites that constitute the nation's cultural heritage cannot be avoided, are minimised and remedied. - Where waste cannot be avoided, it is minimised and remedied through the implementation and adherence of EMPr. - The use of non-renewable natural resources is responsible and equitable – <i>no exploitation of non-renewable natural resources occurs with the proposed activity.</i> - The negative impacts on the environment and on people's environmental rights have been anticipated and prevented, and where they cannot be prevented, are minimised and remedied - <i>refer to Section F below.</i> - The interests, needs and values of all interested and affected parties have been taken into account in any decisions through the Public Participation Process – <i>please refer to Section C for the public participation information.</i> - The social, economic and environmental impacts of the activity have been considered, assessed and evaluated, including the disadvantages and benefits – <i>refer to Section B below.</i> <p>The effects of decisions on all aspects of the environment and all people in the environment have been taken into account, by pursuing what is considered the best practicable environmental option – <i>the proposed activity is expected to have minimal/negligible environmental impacts, especially after mitigation measures as described under Section D and E and in the EMPr are implemented.</i></p>	

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)	This EIA Application	Department: Environment and Nature Conservation	Not yet
Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)	Rezoning and subdivision	Local Municipality	Not yet
National Forest Act, Act 84 of 1998 (NFA)	Permit Application	Department of Agriculture, Forestry and Fisheries	Not Yet
National Heritage Resources Act (NHRA No. 25 of 1999)	Notification to SAHRA is required for proposed developments exceeding certain dimensions (Sect. 38), upon which they will decide whether or not the development must be assessed for heritage impacts.	SAHRA	Not yet, but the Basic Assessment Report and Heritage Impact Assessment will be loaded onto SAHRIS

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

YES	NO
m ³	

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

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

The general solid waste generated during construction will be consolidated on site during construction, and disposed of at the nearest approved municipal landfill site.

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

The general solid waste generated during construction will be consolidated on site during construction, and disposed of at the nearest approved municipal landfill site.

Will the activity produce solid waste during its operational phase?

YES	NO
m ³	

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

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

The general household solid waste generated will be collected by the municipality and will be disposed of at the nearest approved municipal landfill site.

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

The general household solid waste generated will be collected by the municipality and will be disposed of at the nearest approved municipal landfill site.

Where will the solid waste be disposed of 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 NEM:WA?

YES	NO
-----	----

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

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

YES	NO
-----	----

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

b) Liquid effluent

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

YES	NO
-----	----

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

m³

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

YES	NO
-----	----

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

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:

None.

c) Emissions into the atmosphere

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

YES	NO
YES	NO

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

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

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

--

d) Waste permit

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

YES	NO
-----	----

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

e) Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

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

Describe the noise in terms of type and level:

Construction noise during the construction phase and some general noise associated with a residential development of this size. The proposed development would have a low negative noise impact and the SANS noise standards will be adhered to.

13. WATER USE

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

<input checked="" type="checkbox"/> Municipal	<input 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
---	--------------------------------------	--------------------------------------	---	--------------------------------	--

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

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

litres	
YES	NO

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

14. ENERGY EFFICIENCY

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

--

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

--

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

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

- Paragraphs 1 - 6 below must be completed for each alternative.

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

YES	NO
-----	----

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

Property description/physical address:

Province	Northern Cape
District Municipality	Namakwa District Municipality
Local Municipality	Khai-Ma Local Municipality
Ward Number(s)	Ward 3
Farm name and number	Remainder of Erf 1077
Portion number	
SG Code	C05300140000107700000

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

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

The site is currently zoned "undetermined".

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

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

YES	NO
-----	----

A land use application is underway for the rezoning and subdivision of the remainder of Erf 1077. The site will be rezoned to Residential 1 once the land use application and Environmental Impact Assessment application (EIA) has been finalised. The areas within the site, where mature Kameeldoring trees are located, will be used as Open Space, so as to protect the mature Kameeldoring trees located within the site. Please refer to Figure 4 below.

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
------	-------------	-------------	-------------	--------------	-------------	---------------------

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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2. LOCATION IN LANDSCAPE

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

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

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

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

4. GROUND COVER

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

Natural veld in good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy 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. [Please refer to Appendix D1 for the Biodiversity Impact Assessment.](#)

5. SURFACE WATER

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

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

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

[Goob se Laagte River is located approximately 265m east of the proposed site, and the main drainage channel east of Pella flowing northwards to the Orange River. Please refer to figures 3 – 4 below.](#)

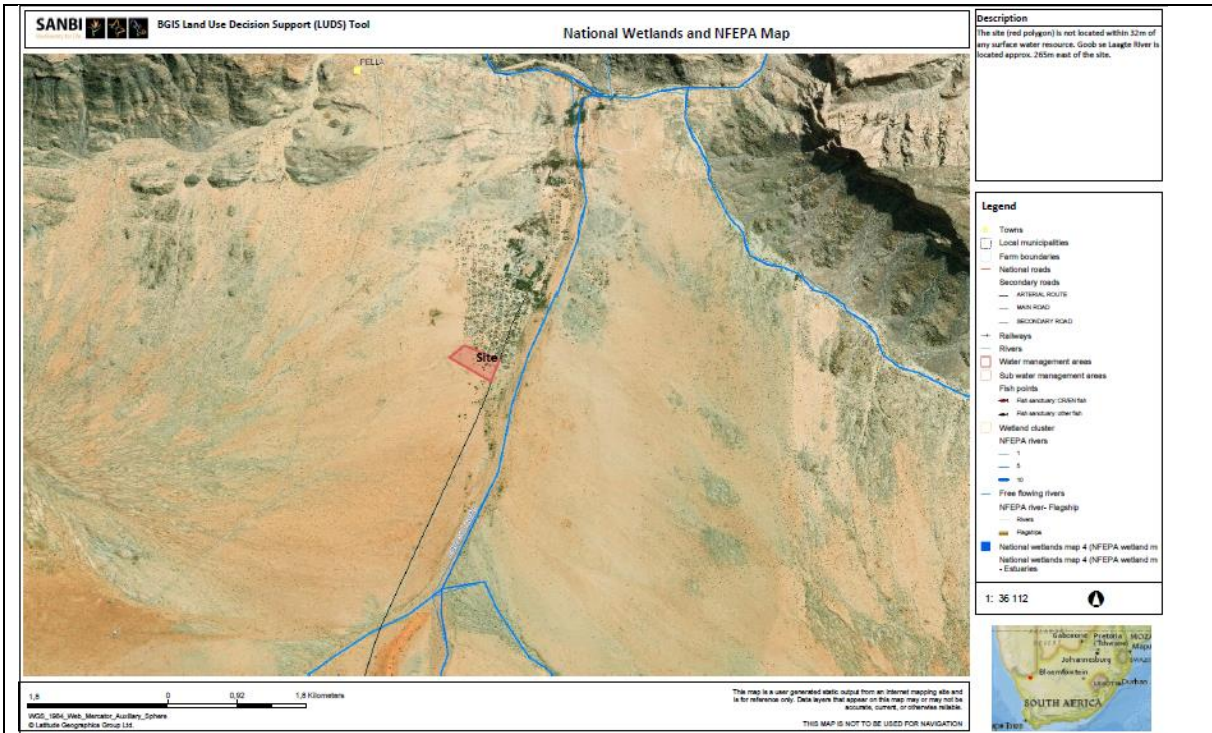


Figure 3: SANBI BGIS National Wetlands and NFEPA Map. The site (red polygon) is not located within 32m of any surface water resource. Goob se Laagte River is located approximately 265m east of the proposed site, and the main drainage channel east of Pella flowing northwards to the Orange River.

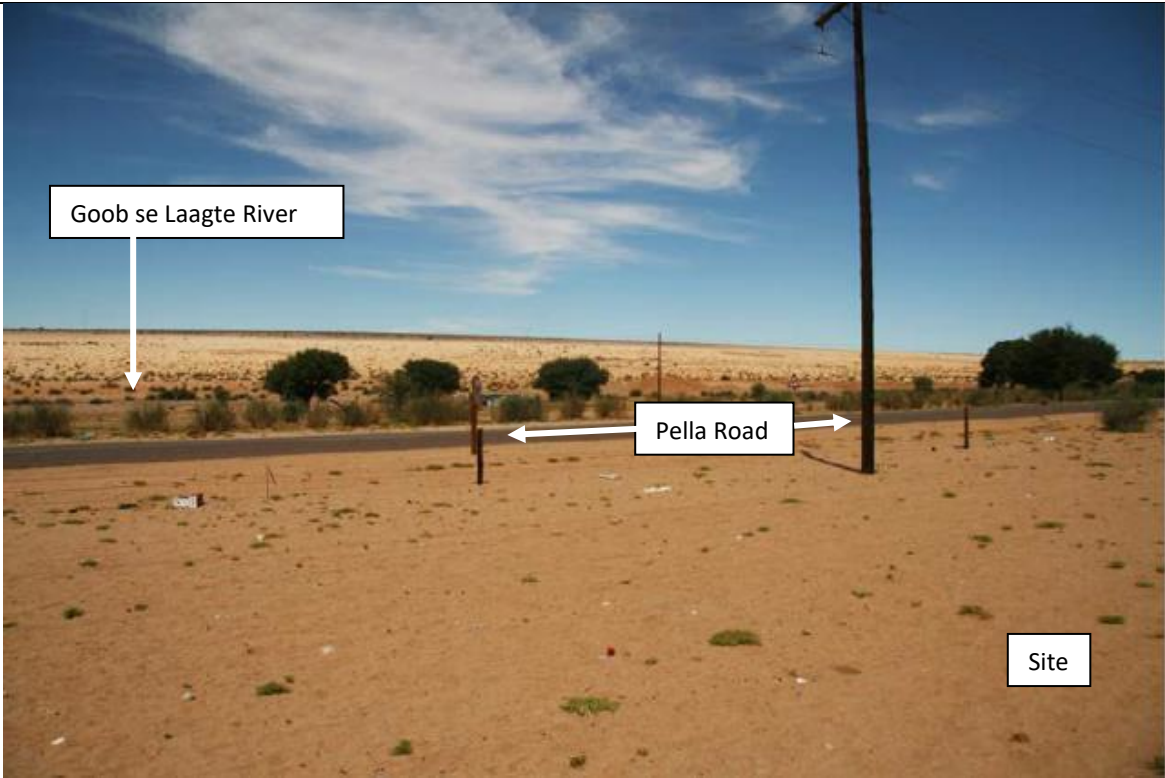


Figure 4: A view of the site, across Pella Road towards the Goob se Laagte River in the east.

6. LAND USE CHARACTER OF SURROUNDING AREA

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

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

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

N/A. However, Pella is basically a dormant settlement consisting of mainly of residential land uses, limited institutional uses, i.e., clinic, police station, crèche, library, a primary school and restaurants/taverns, mainly centred around the cathedral. There is an existing graveyard on the south-western part of the property which will not be disturbed by this development (50m perimeter buffer zone around the cemetery). The proposed site does contain some Kameeldoring trees (*Vachellia erioloba*) which will not be disturbed. The agricultural activities in the region include vineyards and date palm production.

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

N/A

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

N/A

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

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

Buffer area of the SKA?	YES	NO
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If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

Although the proposed housing development site technically falls within a CBA2, it is important to note that the site forms part of the town of Pella and is highly disturbed and degraded. The site is disturbed, degraded and overgrazed resulting in a very species poor composition of the site. Please refer to Appendices A2 and Appendix J2 for the Biodiversity Sensitivity Map and Appendix D1 for the Biodiversity Impact Assessment (BIA).

7. CULTURAL/HISTORICAL FEATURES

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

According to the Heritage Impact Assessment (HIA) (Appendix D2), an Ostrich Eggshell (OES) flask fragment were identified well outside of the development footprint towards the south and is located at co-ordinates 29° 02'42.36" S ; 19° 08'48.26" E. However, this OES has a low significance rating (Field Rating – IV C).

Roman Catholic Mission Church is situated in Pella, but not located within the proposed development footprint (29° 01'54.79" S ; 19° 09'13.94" E). Pella Catholic Mission Church is a declared National Monument and have been graded as having High (Grade I) historical significance.

A formal local cemetery lies within the development footprint, and is located at the co-ordinates 29° 02'22.70" S ; 19° 08'51.67" E. The local cemetery has been graded as having High (Grade IIIA) archaeological significance. The local municipal cemetery is situated within the south-western quadrant of the development area and lies within the impact zone. The cemetery is currently fenced, and the development is planned around it. However, care will be taken to minimise the effects of construction activities. All graves are of high significance and care must be taken to protect them. The graves are of Local significance with Field Rating/Grade IIIA. The cemetery on site is of High Significance and must be protected. It is recommended that a perimeter buffer zone of 50m must be maintained and impact on the cemetery to be monitored frequently.

No archaeological features were found within the development footprint. One occurrence of an ostrich eggshell fragment was recorded to the south of the study area. The OES fragment is unworked and without archaeological context and is therefore insignificant. No further action or mitigation is required.

No significant historical features were identified within the study area. An old cement water trough/furrow is located in the north-eastern quadrant of the development footprint. It is however not historical and therefore of no significance.

According the HIA, from a heritage resources perspective, there are no objections to the authorization of the development. Please refer to Appendix D2 for the Heritage Impact Assessment.

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

Please note that the site is larger than 5 000m² and the character of the site will change. The site is also larger than 10 000m² and will be rezoned and subdivided. The project is therefore subject to Section 38(1) of the NHRA. The project will be registered with SAHRA through SAHRIS.

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)?

YES	NO
YES	NO

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

The project will be registered with SAHRA through SAHRIS.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

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

Level of unemployment:

Of the 5904 economically active people (employed and unemployed but looking for work), 22,1% are unemployed. 322 are classified as discouraged work-seekers.

Of the youth (aged 15 – 34), 2 511 are employed, 776 are unemployed, 192 are classified as discouraged work-seekers, and 1 109 are not economically active.

Economic profile of local municipality:

According to Khai-Ma Local Municipality IDP 2012 - 2017, Community Services (social grants) and Mining makes the highest contributions to the Namakwa-District Municipality. The main economic sectors, in terms of contribution to GDP and/or employment, of Khai Ma Local Municipality are: Agriculture, Mining and Tourism. Livestock farming contributes 80% of Khâi-Ma's farming activities. Land that lies along the banks of the Orange River supports the production of some quality agricultural products, i.e. export table grapes, dates, hoodia, geranium and other crops at Onseepkans, Witbank and Pella. Intensive agricultural development should be limited to defined areas along the Orange River where it will no impact negatively on the unique biodiversity of the area.

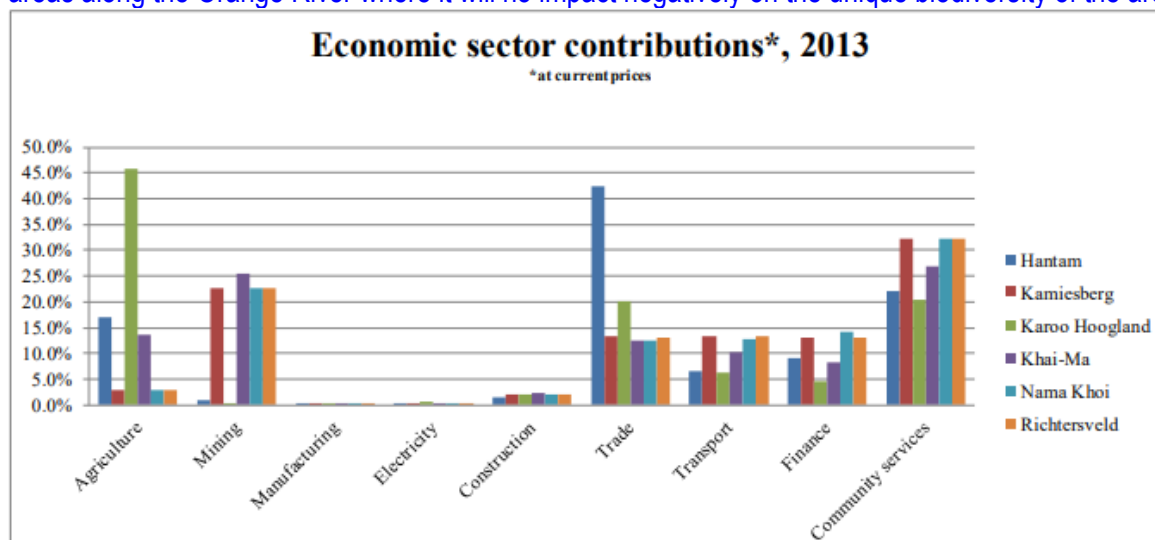


Figure 5: NDM IDP 2018 – 2019: It is clear that the Community Services contributed the most to the Economy followed by Mining (25%), Agriculture (14%) and then trade (12%).

Level of education:

According Census 2011, the Khâi-Ma Municipality has a total population of 12 465 people, of which 75,1% are coloured, 17,6% are black African, and 6,0% are white. Other groups make up 0,4% of the population.

Of those aged 20 years and older, 46,3% have some secondary schooling, 17,5% have some primary schooling, 18,1 % completed Grade 12/matric, 5 8% have some higher education, 8,4% completed some primary schooling and 3,9% of this municipality have no schooling.

b) Socio-economic value of the activity

To be Confirmed

What is the expected capital value of the activity on completion?	R 18 000 000,00
What is the expected yearly income that will be generated by or as a result of the activity?	None
Will the activity contribute to service infrastructure?	YES NO
Is the activity a public amenity?	YES NO
How many new employment opportunities will be created in the development and construction phase of the activity/ies?	Unknown
What is the expected value of the employment opportunities during the development and construction phase?	Unknown
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?	Unknown
What is the expected current value of the employment opportunities during the first 10 years?	Unknown
What percentage of this will accrue to previously disadvantaged individuals?	Unknown

9. BIODIVERSITY

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

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

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	The proposed housing site at Pella falls within a CBA 2 area.
				CBAs are areas required to meet biodiversity targets for ecosystems, species or ecological processes. CBAs should be kept in a natural or near-natural state, with no further loss of habitat or land-use change permitted. An ESA is not essential for meeting biodiversity targets but plays an important role in supporting the ecological functioning in a CBA.
				Although the proposed housing development site technically falls within a CBA2, it is important to note that the site forms part of the town of Pella and is highly disturbed and degraded.

- b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	0%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	30%	Highly disturbed, degraded, and overgrazed, with some infestation of prosopis trees. Some informal structures on the site with some dirt roads. Some Kameeldoring trees (<i>Vachellia erioloba</i>) were observed on site.
Degraded (includes areas heavily invaded by alien plants)	70%	Bare soil in some places with no vegetation. Highly disturbed, degraded, and overgrazed, with some infestation of prosopis trees. Some informal structures on the site with some dirt roads. Some Kameeldoring trees (<i>Vachellia erioloba</i>) were observed on site.
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	0%	

c) Complete the table to indicate:

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

Terrestrial Ecosystems		Aquatic Ecosystems							
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline		
	Endangered								
	Vulnerable								
	Least Threatened	YES	NO	UNSURE	YES	NO	YES	NO	

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

The site occurs in the Eastern Gariep Plains Desert that covers the sandy plains between the mountains south of the Orange River. This vegetation type is classified as '*Least threatened*' and is not conserved in any statutory conservation areas. The proposed housing site is homogeneous in terms of terrain and vegetation and is described as a sandy plains habitat type with the protected tree *Vachellia erioloba* and the endemic *Sisyndite spartea* the prominent plant species. However, the site forms part of the town of Pella and is highly disturbed and degraded. Other vegetation types in the region include the Eastern Gariep Rocky Desert, Bushmanland Arid Grassland and the Lower Gariep Alluvial Vegetation. Please refer to figure 6 - 11 below:

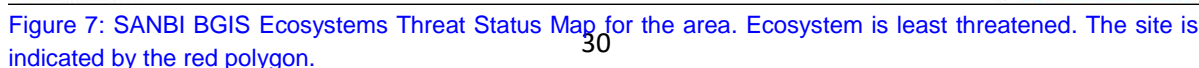




Figure 8: View of site from the north-western corner to the southeast. Some informal structures are located on the north-western part of the site.



Figure 9: View of site from the north-eastern corner to the southwest. The most prominent tree species on site are the protected *Vachellia erioloba* and the alien invasive *Prosopis* trees. *Vachellia erioloba* trees on site will be protected.



Figure 10: View of site from the southern corner to the northwest. The most prominent tree species on site are the protected *Vachellia erioloba* and the alien invasive *Prosopis* trees. *Vachellia erioloba* trees on site will be protected.



Figure 11: A view of site, as viewed from the western corner to the east. An existing cemetery is located within the south-western part of the site. No vegetation present.



Figure 12: A view of site, as viewed from the western corner to the east. An existing cemetery is located within the south-western part of the site. No vegetation present.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Die Plattelander	
Date published	25 March 2019	
Site notice position	Latitude	Longitude
	See Appendix E2	
Date placed	14 March 2019	

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

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 733.

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 733

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)

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

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

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
No comments were received during the initial PPP Period.	

4. COMMENTS AND RESPONSE REPORT

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

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
NC Department of Agriculture & Land Reform	W. Mothibi (HOD)	(053)838 9100	(053) 831 4685		Private Bag X5018, Kimberley, 8300
Department of Cooperative Governance, Human Settlements and Traditional Affairs (NC)	Gladys Botha	053 830 9513			Private bag X5005, Kimberley, 8300
Department of Roads and Public Works	K. Nogwili (HOD)	(053) 838 9100	053 832 7380		P O Box 3132, Kimberley, 8300
Department of Agriculture, Forestry and Fisheries	J. Mans	054 338 5909	(054) 338 5909		PO Box 2782, Upington, 8800
Department of Water and Sanitation	A. Abrahams	053 830 8803	053 831 4534		28 Central Road, Beaconsfield, Kimberley, 8301
Department of Water and Sanitation	S. Shibambu	054 338 5819	054 338 5819		Private Bag X6101, Kimberley, 8300
SAHRA	N. Higgitt	021 462 4502	021 462 4509		P.O.Box 4637, Cape Town, 8000
Department of Health	S. Jonkers	(053) 830 2100	(053) 830 2100		Private Bag X5049, Kimberley, 8300

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

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

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

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

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

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

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

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

Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
	Direct impacts: Direct loss of indigenous vegetation, including the protected tree Vachellia erioloba and concomitant loss of faunal habitat.	Very-low negative impact	<ul style="list-style-type: none"> 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. All construction must be done in accordance with an approved construction and operational phase Environmental Management Programme (EMPr), which must be developed by a suitably experienced Environmental Assessment Practitioner. A suitably qualified Environmental Control Officer (ECO) must be appointed to monitor the construction phase in terms of the EMPr and the Biodiversity Impact Assessment recommendations

Activity	Impact summary	Significance	Proposed mitigation
			<p>as well as any other conditions which might be required by the Department of Environment and Nature Conservation.</p> <ul style="list-style-type: none"> • 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 all associated footprints within the various construction sites. • Vegetation clearance should be confined to the footprint of the proposed housing development. • The position of each dwelling should be micro-sited to accommodate the trees where possible. • The use of arboricides for the clearing of vegetation is not recommended. • A control program to combat declared alien invasive plant species must be employed. • No invasive alien species should be used in rehabilitation projects or for gardening. • Streets should be designed to reduce the risk of erosion. • Construction crew, in particular the drivers, should undergo environmental training to increase their awareness of environmental concerns
	Indirect impacts: Temporary jobs will be created in the construction industry during the construction phase.	Low-positive	<ul style="list-style-type: none"> • No mitigation measures are required. • Temporary jobs will be created during the construction phase. • Housing opportunities to residents.
	Cumulative impacts:		
	Direct impacts: The loss of cultural or historic aspects during construction	Low-negative	<ul style="list-style-type: none"> • This HIA has identified no significant heritage resources on the remainder of Erf 1077. • The development footprint are no archaeological, historical or cultural sites, or paleontological resources apart from the cemetery, that will be impacted negatively by the proposed development. • No significant heritage resources were identified. • The cemetery on site is of

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>High Significance and should be protected. It is recommended that a perimeter buffer zone of 50m must be maintained and impact on the cemetery be monitored frequently.</p> <ul style="list-style-type: none"> Although all possible care has been taken to identify sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the assessment. During construction, any possible discovery of finds such as stone tool scatters, artefacts, human remains, or fossils are made, the operations must be stopped, and the ECO in charge of these developments ought to be alerted immediately. These discoveries ought to be protected (preferably in situ), and the ECO must report to SAHRA so that appropriate mitigation (e.g. recording, collection) can be carried out by a professional archaeologist or palaeontologist. SAHRA Contact details: South African Heritage Resources Agency, 111 Harrington Street, PO Box 4637, Cape Town 8000, South Africa. Email: Phone: +27 (0)21 462 4502. Fax: +27 (0)21 462 4509 Web: www.sahra.org.za). The ECO and Engineer are also to be informed. If any archaeological remains (including but not limited to fossil bones and fossil shells, coins, indigenous and/or colonial ceramics, any articles of value or antiquity, stone artefacts and bone remains, structures and other built features, rock art and rock engravings) are discovered during construction they must immediately be reported to SAHRA and must not be disturbed further until the necessary approval has been obtained from SAHRA.
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts: Increased dust during construction (earth moving)	Very-low negative	<ul style="list-style-type: none"> Excessive dust during construction, can be reduced by spraying water regularly to

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
	equipment)		<p>control dust generation. Other suitable dust control mitigation measures can also be considered.</p> <ul style="list-style-type: none"> The Contractor must take all reasonable measures to minimize the generation of dust as a result of construction activities resulting from along-construction-route activities (but must also take into account possible water constrictions of the area). The onsite construction site agent must take into account prevailing wind strength and wind direction and must have preventative measures on standby to minimize dust pollution that may cause damage to people and property. The liberation of dust into the surrounding environment shall be effectively controlled by the use of, inter alia, water spraying and/or other dust-allaying agents. The speed of haul trucks and other vehicles must be strictly controlled to avoid dangerous conditions, excessive dust or excessive deterioration of the road being used. The implementation of the EMP.
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts: Increased noise levels during construction	Very-low negative	<ul style="list-style-type: none"> The SANS noise standards should be adhered to. Existing speed limits should be adhered to. The potential impacts associated with construction related activities and heavy vehicles can be effectively mitigated. The proposed development should be phased and site clearing confined to the specific areas under construction; Dust suppression measures must be implemented when site clearing takes place, such as wetting of exposed areas and access roads; Construction related activities should comply with all relevant building regulations. In this regard activities on site should be restricted to between 07h00 and 18h00 during weekdays and 08h00 and

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>13h00 on Saturdays. No work should be permitted after 13h00 on Saturdays and on Sundays or Public Holidays;</p> <ul style="list-style-type: none"> • Drivers should be made aware of the potential dust and noise impacts. All drivers must ensure that a maximum speed limit of 60 km per hour is enforced along Pella Road; • The movement of heavy construction vehicles along Pella Road must be timed to avoid peak traffic hours; • Dust suppression measures must be implemented to reduce impacts associated with the movement of construction vehicles, including wetting of gravel roads and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers; • All vehicles must be road-worthy and drivers must be qualified, made aware of the potential road safety issues, and need for strict speed limits. • The implementation of the EMPr.
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts: Visual Impact as result of construction vehicles on site	Low negative	<ul style="list-style-type: none"> • The SANS noise standards should be adhered to. • Existing speed limits should be adhered to. • The potential impacts associated with construction related activities and heavy vehicles can be effectively mitigated. • The proposed development should be phased and site clearing confined to the specific areas under construction; • Dust suppression measures must be implemented when site clearing takes place, such as wetting of exposed areas and access roads; • Construction related activities should comply with all relevant building regulations. In this regard activities on site should be restricted to between 07h00 and 18h00 during weekdays and 08h00 and 13h00 on Saturdays. No work should be permitted after

BASIC ASSESSMENT REPORT

Activity	Impact summary	Significance	Proposed mitigation
			<p>13h00 on Saturdays and on Sundays or Public Holidays;</p> <ul style="list-style-type: none"> • Drivers should be made aware of the potential dust and noise impacts. All drivers must ensure that a maximum speed limit of 60 km per hour is enforced along Pella Road; • The movement of heavy construction vehicles along Pella Road must be timed to avoid peak traffic hours; • Dust suppression measures must be implemented to reduce impacts associated with the movement of construction vehicles, including wetting of gravel roads and ensuring that vehicles used to transport sand and building materials are fitted with tarpaulins or covers; • All vehicles must be road-worthy and drivers must be qualified, made aware of the potential road safety issues, and need for strict speed limits. • The implementation of the EMP.
	Indirect impacts:		
	Cumulative impacts:		
Alternative 2			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
Alternative 3			
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
No-go option			
	Direct impacts: No additional housing opportunities will be provided	Low - negative	N/A.
	Indirect impacts:		
	Cumulative impacts:		

A complete impact assessment in terms of Regulation 19(3) of GN 733 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

Construction phase

Freshwater ecosystems – **Negligible, unlikely.**

Loss of vegetation– **Very-low (negative), Definite, during construction phase.**

Potential impacts on heritage / cultural or historic aspects – **Low (negative), Probable, during construction phase.**

Job creation – **Low (Positive), definite, during construction phase.**

Noise impact – Low (negative), **definite, only during construction phase.**

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

Dust Impact – **Very-low (negative), definite, during construction.**

Noise Impact – **Very-low (negative), definite, during construction.**

Operational Phase

Geographical and/or physical aspects - **No impact expected.**

Loss of Vegetation – **No impact expected.**

Freshwater ecosystems – **No impact expected.**

Potential impacts on heritage / cultural or historic aspects – **No impact expected.**

Socio-economic (additional housing opportunities – **Low (Positive), Probable.**

Noise impact - **No impact expected.**

Visual impact – **No impact expected.**

Decommissioning

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

Alternative B

Alternative C

No-go alternative (compulsory)

No additional housing opportunities will be provided - **Low – negative, Probable**

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES

NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

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.

Compliance with the EMPr and appointment of an ECO during the construction phase.

Is an EMPr attached?

YES

NO

The EMPr must be attached as Appendix G.

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

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

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

NAME OF EAP

SIGNATURE OF EAP

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports (including terms of reference)

Appendix E: Public Participation

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise

Appendix I: Specialist's declaration of interest

Appendix J: Additional Information