



the denc

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:	K2011149313 South Africa (Pty) Ltd h/a DupNell Corporation (Pty) Ltd		
Business reg. no. /ID. no.:	K2011149313		
Contact person:	Doppies Nel		
Postal address:	P.O. Box 322, Augrabies, 8874		
Telephone:	054 451 7048	Cell:	
E-mail:		Fax:	086 531 3856

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 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:

- 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.
- This report format is current as of **08 December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
- 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.
- Where applicable **tick** the boxes that are applicable in the report.
- An incomplete report may be returned to the applicant for revision.
- 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.
- This report must be handed in at offices of the relevant competent authority as determined by each authority.
- No faxed or e-mailed reports will be accepted.
- The signature of the EAP on the report must be an original signature.
- The report must be compiled by an independent environmental assessment practitioner.
- 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.
- A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
- 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.

- **ACTIVITY DESCRIPTION**

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

It is proposed that Erf 1612, Kakamas be rezoned and sub-divided to accommodate thirty seven (37) residential units and a wellness centre, including associated infrastructure. The property is approximately 2.9268ha in size.

The site is currently vacant, with only the existing "waterwese saal" and parking located on the site. The "waterwese saal" will be demolished to make way for the wellness centre.

The current zoning on the property is Institutional zone II (Erf 1612). The newly proposed zonings will be Residential II (townhouses) and Special zone (wellness centre).

Services:

The services to the proposed development are described in the Services Report (**Appendix D2**).

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 Diamant Street. The entrance will be controlled by a Security Entrance Gate on Diamant Street.

Water:

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 western and eastern boundary. A 110mm connection will be made on the existing supply line.

The development is expected to generate an average flow of 0.44 l/s with an instantaneous peak flow of 3.88 l/s.

Sewerage:

There is currently no sewage reticulation system. The development will require a sewage reticulation network, including house connections and a local sewage purification system. The internal sewer system will consist of Ø 160mm 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 be treated by the Bio- Filter Rotating Biological Contactor Sewage Purification Plant. Municipal services will be required for the disposal of the sludge as required once the plant is operational.

The sewerage disposal systems, will consist of internal sewage reticulation systems as well as Purification plant. On site treatment of sewage will eliminate typical sewage runoff, therefore not impacting the municipal sewerage reticulation system.

The average daily flow is determined to be 35 m³/day at typical domestic raw sewage strength of 600mgCOD/l anticipated, equating to a raw sewage organic load of 21 kgCOD/day.

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:

The storm water peak run-off (see Table 1 of Appendix D2) was determined by considering the average rainfall over the drainage area for the indicated storm events. Drainage through the site mainly consists of two minor run-off collection routes occurring naturally from the north and west of the property. The catchment areas contributing to these storm water run-offs are however relatively small and result in easily manageable flows across the site.

Storm water run-off will be handled overland and accommodated within the proposed roads while complimenting the existing natural drainage scenario within and around the property. 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:

Erf 1612 in Kakamas is an undivided stand and thus was not included in the electrical reticulation master planning.

The existing municipal miniature substation in Diamond Str is theoretical loaded to 65% of its capacity and thus cannot accommodate the expected additional loading due to the development.

Electrical distribution for the development can be facilitated through the extension of the municipal medium voltage network in Diamond Street and the installation of a dedicated miniature substation in the centre of the development. The internal low voltage reticulation and service connections will be connected to the proposed miniature substation. The cost for the provision of the electrical services will be for the account of the developer.

The expected maximum demand of the proposed development should have no significant effect on the Notified Maximum Demand of Kakamas and thus no further financial contribution is expected from the developer.

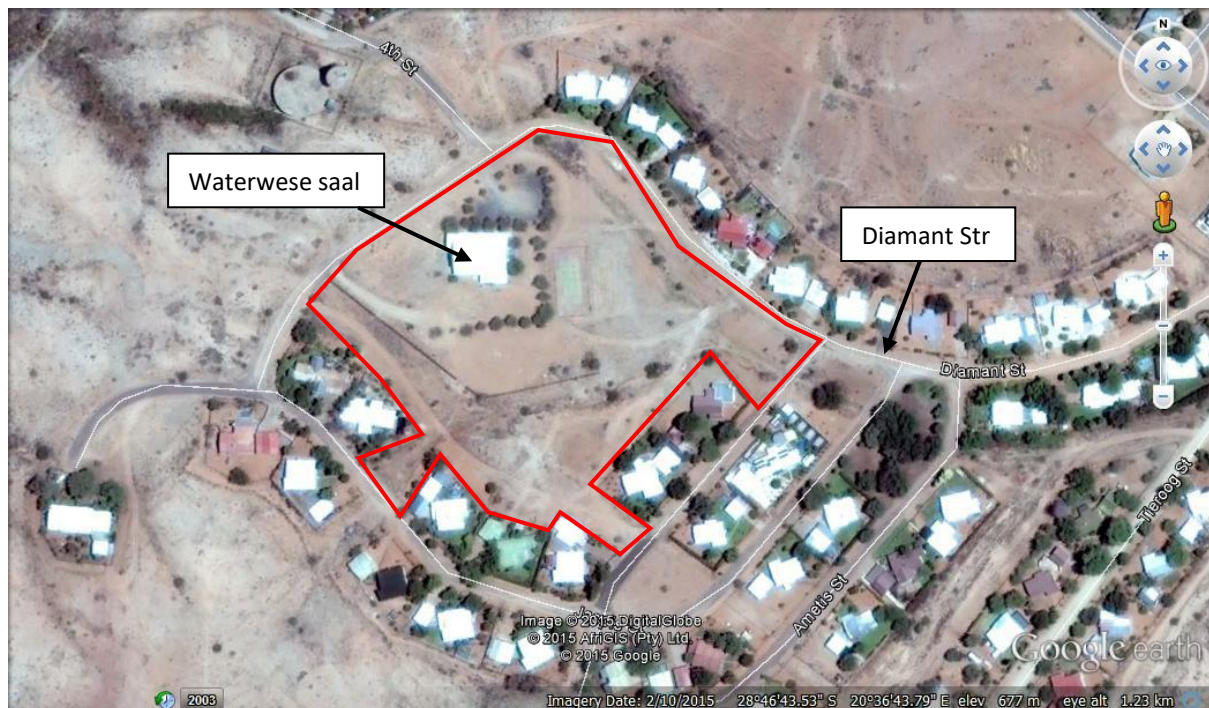


Figure1: Aerial view of the site. Erf 1612 depicted by the red polygon

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

Listed activity as described in GN 983, 984 and 984	Description of project activity
<p><u>GN 983 (Item 12):</u> The development of;</p> <ul style="list-style-type: none"> (i) canals exceeding 100 square metres in size; (ii) channels exceeding 100 square metres in size; (iii) bridges exceeding 100 square metres in size; (iv) dams, where the dam, including infrastructure and water surface area, exceeds 100 square metres in size; (v) weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size; (vi) bulk storm water outlet structures exceeding 100 square metres in size; (vii) marinas exceeding 100 square metres in size; (viii) jetties exceeding 100 square metres in size; (ix) slipways exceeding 100 square metres in size; (x) buildings exceeding 100 square metres in size; (xi) boardwalks exceeding 100 square metres in size; or (xii) infrastructure or structures with a physical footprint of 100 square metres or more; <p>where such development occurs;</p> <ul style="list-style-type: none"> (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; 	<p>Infrastructure and buildings exceeding 100m² will be constructed within 32m of the drainage line which crosses the site</p>
<p><u>GN 983 (Item 19):</u> The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from;</p> <ul style="list-style-type: none"> (i) a watercourse; (ii) the seashore; or (iii) the littoral active zone, an estuary or a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever distance is the greater but excluding where such infilling, depositing , dredging, excavation, removal or moving; <ul style="list-style-type: none"> (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; or (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies. 	<p>A small drainage line crosses the property on the north eastern side of the site. This will more than likely be infilled.</p>
<p><u>GN 983 (Item 27):</u> The clearance of an area of 1 hectares or more, but less than 20 hectares of</p>	<p>Although there is very little natural vegetation on site, and the site is mostly disturbed,</p>

<p>indigenous vegetation, except where such clearance of indigenous vegetation is required for;</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>developed or transformed, the site does exceed 1ha, and vegetation will need to be cleared</p>
--	---

• **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 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:	Latitude (S):	Longitude (E):
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		

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 Erf 1612, Kakamas be rezoned and sub-divided to accommodate thirty seven (37) residential units and a wellness centre, including associated infrastructure. The property is approximately 2.9268ha in size. Please refer to Appendix C1.</p> <p>The site is currently vacant, with only the existing water affairs hall “waterwese saal” and parking located on the site. The “waterwese saal” will be demolished to make way for the wellness centre.</p> <p>The current zoning on the property is Institutional zone II (Erf 1612). The newly proposed zonings will be Residential II (townhouses) and Special zone (wellness centre).</p> <p>The description of the primary land use rights are as follows:</p> <p><i>Special Zone - a use which is such, or of which the land use restrictions are such that it is not catered for in these regulations, and of which the uses and land use parameters are fully described by means of the conditions as contained in the special zone.</i></p> <p><i>Residential Zone II - a group of separate and/or connected individual residential units which were planned, designed and built as a harmonious architectural entity with a medium density character and with units that may vary between single and double storeys and of which each unit has a ground floor, irrespective whether such units are cadastrally divided or not.</i></p>	28° 46' 42.3"S	20° 36' 42.7"E

Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>For the alternative layout, it is proposed that Erf 1612, Kakamas be rezoned and sub-divided to accommodate thirty four (34) residential units. The existing water works hall “waterwese saal” will be retained and left out of the development (Appendix C2).</p> <p>The layout was not preferred since keeping the “waterwese saal” would not make sense, seeing as the proposed development will be very modern in nature and the older structure of the “waterwese saal” would not be compatible therewith. It is also offers less residential opportunities compared to the preferred alternative.</p> <p>There are no environmental gains or positive environmental impacts compared to the preferred alternative.</p>	28° 46’ 42.3”S	20° 36’ 42.7”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

<p>This would mean that no-development would take place and the proposed site will remain as is. No additional housing opportunities will be provided.</p> <p>Although this option would result in no potential negative environmental impacts, the social benefits from implementing the activity would not be achieved.</p> <p>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.</p>

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

- PHYSICAL SIZE OF THE ACTIVITY**

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

Alternative:		Size of the activity:
Alternative A1 (preferred activity alternative)		m ²
Alternative A2 (if any)		m ²
Alternative A3 (if any)		m ²

or, for linear activities:

Alternative:		Length of the activity:
Alternative A1 (preferred activity alternative)		m
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

- 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:

N/A

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

- 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).

- **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.

- **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.

- **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.

- **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.

• **ACTIVITY MOTIVATION**

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

<ul style="list-style-type: none"> • Is the activity permitted in terms of the property's existing land use rights? 	YES	NO	Please explain
The site will need to be rezoned from Institutional zone II to Residential II (townhouses) and Special zone (wellness centre).			
<ul style="list-style-type: none"> • Will the activity be in line with the following? 			
<ul style="list-style-type: none"> (a) Provincial Spatial Development Framework (PSDF) 	YES	NO	Please explain
The Spatial Development Framework of the Municipality puts the development site within the Urban Edge of Kakamas earmark the site for future institutional development. Despite of the above-mentioned, the proposed development site is surrounded by residential land uses, which compares excellently with the proposed townhouse development.			
<ul style="list-style-type: none"> (b) Urban edge / Edge of Built environment for the area 	YES	NO	Please explain
The site is located within the urban edge of Kakamas and is surrounded by residential land-uses (please refer to Appendix J1).			
<ul style="list-style-type: none"> (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
The Spatial Development Framework of the Municipality puts the development site within the Urban Edge of Kakamas earmark the site for future institutional development. Despite of the above-mentioned, the proposed development site is surrounded by residential land uses, which compares excellently with the proposed townhouse development.			
<ul style="list-style-type: none"> (d) Approved Structure Plan of the Municipality 	YES	NO	Please explain
Unknown			
<ul style="list-style-type: none"> (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			
<ul style="list-style-type: none"> (f) Any other Plans (e.g. Guide Plan) 	YES	NO	Please explain

<ul style="list-style-type: none"> 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 Spatial Development Framework of the Municipality puts the development site within the Urban Edge of Kakamas earmark the site for future institutional development. Despite of the above-mentioned, the proposed development site is surrounded by residential land uses, which compares excellently with the proposed townhouse development.</p>			
<ul style="list-style-type: none"> 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>The generation of renewable energy (“green energy”) has become one of the most important aspects in developing countries, with the objective of sustainable development in sight. For this purpose the extensive and arid landscapes of the Northern Cape have become very popular, in terms of this immerging sector in the South African economy, namely solar energy generation. The speedy development of the above-mentioned sector has an amount of implications in terms of development in the area of Kakamas.</p> <p>One of these implications is the influx of people, due to the steep increase in employment opportunities in the area. The above-mentioned again causes a direct increase in the need for goods, services and especially housing in the Kakamas area.</p> <p>The location of the proposed development will not only give opportunity for infill planning but also positively contribute to the aesthetics of the area and the existing residential character thereof.</p> <p>The proposed development will contribute positively to the land value of the involved property, as well as that of surrounding properties.</p> <p>The proposed development will, after approval, take place on land that is currently utilised in an institutional capacity. The status quo situation isn’t very aesthetically pleasing. The proposed utilisation of the involved property will entail a very high quality permanent residential development that will greatly contribute to value of character in the central neighbourhoods of Kakamas.</p> <p>The proposed development will also create temporary job opportunities during the construction phase, and possibly permanent job opportunities during the operational phase.</p>			
<ul style="list-style-type: none"> 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>The Kai! Garib Municipality has confirmed the availability of services in a meeting held with the engineers and planners (See Appendix I)</p>			

<ul style="list-style-type: none"> 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>Please refer to Appendix I.</p>			
<ul style="list-style-type: none"> 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</p>			
<ul style="list-style-type: none"> 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
<p>The site is located within the urban edge and has access to most municipal services. The development is regarded as infill development. There are no significant negative environmental impacts that have been identified.</p>			
<ul style="list-style-type: none"> Is the development the best practicable environmental option for this land/site? 	YES	NO	Please explain
<p>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. The erf has been disturbed in the past. 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.</p>			
<ul style="list-style-type: none"> Will the benefits of the proposed land use/development outweigh the negative impacts of it? 	YES	NO	Please explain
<p>No significant negative environmental impacts are expected by the proposed development</p>			
<ul style="list-style-type: none"> Will the proposed land use/development set a precedent for similar activities in the area (local municipality)? 	YES	NO	Please explain
<p>Not necessarily, but infill development should be a priority for any further development</p>			
<ul style="list-style-type: none"> Will any person's rights be negatively affected by the proposed activity/ies? 	YES	NO	Please explain
<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 Kakamas area.</p>			
<ul style="list-style-type: none"> Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality? 	YES	NO	Please explain
<p>The development is located within the urban edge, and is considered in-fill development</p>			

<ul style="list-style-type: none"> • Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)? 	YES	NO	Please explain
<ul style="list-style-type: none"> • What will the benefits be to society in general and to the local communities? 	Please explain		
<p>The project will provide additional housing opportunities, and provide job opportunities during the construction, and possibly, the operational phase</p>			
<ul style="list-style-type: none"> • Any other need and desirability considerations related to the proposed activity? 	Please explain		
N/A			
<ul style="list-style-type: none"> • How does the project fit into the National Development Plan for 2030? 	Please explain		
<p>Housing opportunities is a local, provincial and national need.</p>			
<ul style="list-style-type: none"> • 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> - The environmental attributes have been considered in the management and decision-making of the activity – <i>an EMP has been included (Appendix G) with the proposed activity and must adhere to the requirements of all applicable state Authorities.</i> 			
<ul style="list-style-type: none"> • 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 EMP. - 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 – *please refer to Section C for the public participation information.*
- The social, economic and environmental impacts of the activity have been considered, assessed and evaluated, including the disadvantages and benefits – *refer to Section B below.*
- 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 – *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 EMP are implemented.*

• **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
Spatial Planning and Land Use Management Act 16 of 2013 (SPLUMA)	- rezoning and subdivision	Local Municipality	Not yet
National Heritage Resources Act (NHRA No. 25 of 1999)	Notification of HWC 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 (an HIA)	SAHRA	Not yet, but the Basic Assessment Report and Heritage Impact Assessment will be loaded onto SAHRIS

• **WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT**

a) **Solid waste management**

Will the activity produce solid construction waste during the construction/initiation phase?	YES	NO
If YES, what estimated quantity will be produced per month? <i>Unknown</i>	m ³	

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
If YES, what estimated quantity will be produced per month?	m ³	
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		
<i>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.</i>		

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?	m ³	
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	NO
<i>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.</i>		

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

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?	YES	NO
--	-----	----

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

e) Generation of noise

Will the activity generate noise?	YES	NO
If YES, is it controlled by any legislation of any sphere of government?	YES	NO
Describe the noise in terms of type and level:		
General urban noise associated with a residential development of this size		

• WATER USE

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

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

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:	litres	
Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?	YES	NO
If YES, please provide proof that the application has been submitted to the Department of Water Affairs.		

- **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.

<ul style="list-style-type: none"> 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	ZF Mgcawu District Municipality
	Local Municipality	Kai! Garib Municipality
	Ward Number(s)	
	Farm name and number	Erf 1612, Kakamas
	Portion number	
	SG Code	C03600060000161200000
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:	Institutional Zone II	
	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

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

- LOCATION IN LANDSCAPE**

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

2.1 Ridgeline		2.4 Closed valley		2.7 Undulating plain / low hills	
2.2 Plateau		2.5 Open valley	X	2.8 Dune	
2.3 Side slope of hill/mountain		2.6 Plain		2.9 Seafront	
2.10 At sea					

- 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.

- **GROUNDCOVER**

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.

- **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.

A small ephemeral stream or stormwater drain crosses the site the northern part of the site to the south-east. This stream is currently dry, and only appears to briefly flow during heavy rain or storm events. The stream will be incorporated into the stormwater system of the proposed development.



Figure 2: Google Earth image of the site, showing the ephemeral stream (blue dashed line). The red star indicates the location of the photographs taken in Figure 3 and 4 below.



Figure 3: View of the ephemeral stream, looking north west.



Figure 4: View of the ephemeral stream, looking south-west.

• **LAND USE CHARACTER OF SURROUNDING AREA**

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

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

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

N/A

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

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

- 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	

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:

According to the Heritage Impact Assessment (Appendix D4), one banded ironstone core/chunk (S28° 46.731' E20° 36.725') and one weathered jasperlite flake (S28° 46.731' E20° 36.778') was recorded during the study.

The remains have been graded as having *low* (Grade 3C) archaeological significance.

The proposed housing development will not impact on important archaeological resources. The proposed development site is not a threatened archaeological landscape. From a heritage resources perspective, there are no objections to the authorization of the development.

Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO

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

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. The project is therefore subject to Section 38(1) of the NHRA. The project will be registered with SAHRA through SAHRIS.

- 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:

According to StatSA30 949 people are economically active (employed or unemployed but looking for work), and of these, 10% are unemployed.

Of the 19 375 economically active youth (15 – 35 years) in the area, 10% are unemployed

Economic profile of local municipality:

According to the Kai! Garib Municipality IDP 2014, the agricultural sector is still the main economic sector who made the biggest contribution (51.8 %) to the economy of Kai !Garib in 2010. The Agriculture sector is also a major employer in the Municipality, providing 66.5% of all formal employment. It is also the sector with the largest potential for economic growth. The commercial farmers farm especially with grapes for export, raisins and wine, while citrus types of fruit are also becoming more prevalent in the area.

Construction accounts for 2.5%, Community and Government Services 15.9% and Wholesale and retail trade 11.3%

Level of education:

Unknown

b) Socio-economic value of the activity

To be Confirmed

What is the expected capital value of the activity on completion?	R
What is the expected yearly income that will be generated by or as a result of the activity?	R
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?	
What is the expected value of the employment opportunities during the development and construction phase?	R
What percentage of this will accrue to previously disadvantaged individuals?	%
How many permanent new employment opportunities will be created during the operational phase of the activity?	
What is the expected current value of the employment opportunities during the first 10 years?	R
What percentage of this will accrue to previously disadvantaged individuals?	%

• **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)	N/A. No CBAs were identified on SANBI BGIS

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	%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	70 %	The site is almost completely degraded, with very little indigenous vegetation left on the site
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	30%	Parts of the site has been completely transformed through the construction of the hall building, parking lot and old sports surface (old netball/tennis court)

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 unchannelled 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 would historically have been covered in Bushmanland Arid Grassland (Least Threatened). However, very little remains due to activities on the site.

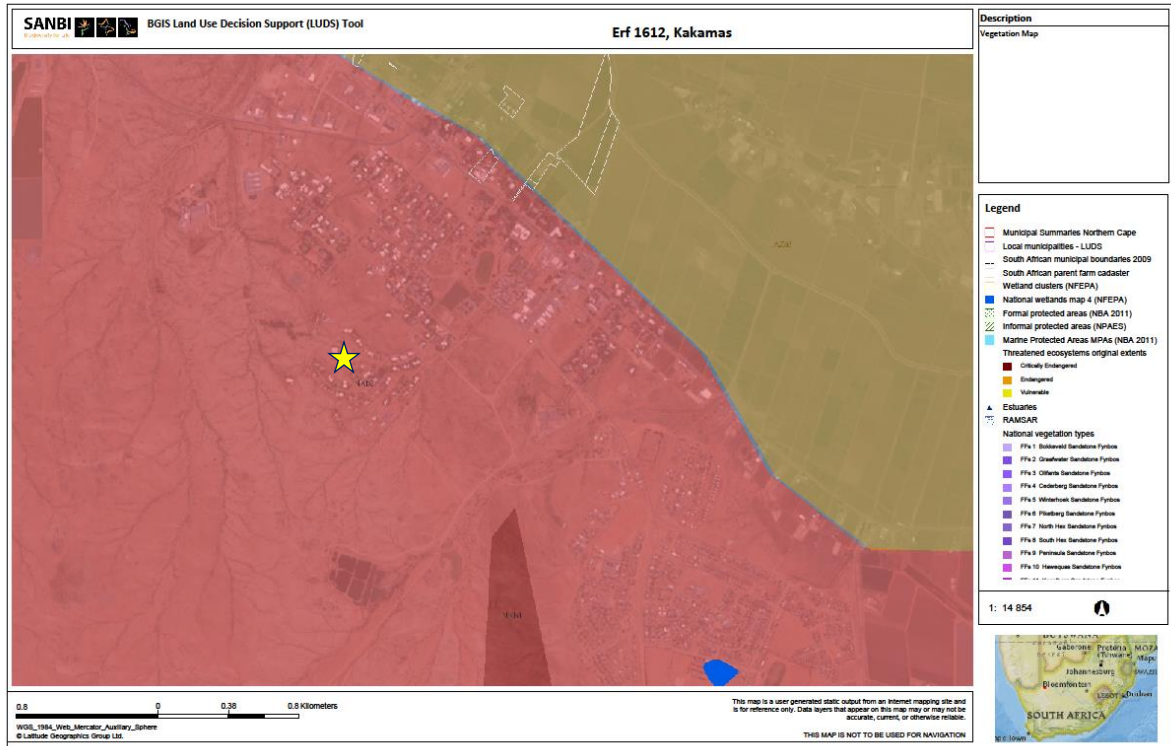


Figure 5: SANBI BGIS map showing the vegetation cover of the area. The site is indicated by the yellow star.



Figure 6: General view of the site. The existing hall and its parking lot can be seen in the top left of the image.



Figure 7: General view of the site. The existing tennis/netball court can be seen to the left of the image. There are thorn trees (soet doring) on site, but these appear to have been planted for landscaping purposes. There is no environmental advantage of keeping these, although where possible, they should be retained.

SECTION C: PUBLIC PARTICIPATION

- **ADVERTISEMENT AND NOTICE**

Publication name	Die Gemsbok	
Date published	13 March 2015	
Site notice position	Latitude	Longitude
Date placed	See Appendix E1	

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

- **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.

- **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	
SAHRA requested that a Heritage Impact Assessment be conducted.	Noted. A HIA has been conducted and is included as Appendix D4 in the Final Basic Assessment Report

- **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.

- **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 9102			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)839 2241			P O Box 3132, Kimberley, 8300
Directorate Forestry Management	J. Mans	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 Affairs-Northern Cape	R. Mazwi	053 7731239			Private Bag X6101, Kimberley, 8300
SAHRA	C. Scheermeyer	021 462 4502			P.O.Box 4637, Cape Town, 8000

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.

- **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.

- **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: Potential impact on freshwater ecosystems	Negligible	<ul style="list-style-type: none"> • Excess material (and concrete slabs and pipes) should not be dumped into the riparian zones and must be removed from site; • Any exotic trees currently growing in the riparian zones should be cut and the stumps treated with herbicide to prevent re-growth; • Appropriate construction methods should be deployed to ensure the prevention of erosion of the canal
	The loss of cultural or historic aspects during construction	Negligible	<ul style="list-style-type: none"> • 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. • Should any human remains/burial or archaeological material be disturbed, exposed or uncovered during construction, these should immediately be reported to the South African Heritage Resources Agency. The ECO and Engineer are also to be informed. <p>The HIA (Appendix D4) recommends the following:</p>

			<ul style="list-style-type: none"> No archaeological mitigation is required. Should any unmarked human burials/remains or ostrich eggshell water flask caches be uncovered, or exposed during construction activities, these must immediately be reported to the archaeologist (Jonathan Kaplan 082 321 0172), or the South African Heritage Resources Agency (Att: Ms Natasha Higgitt (021 462 4502). Burials must not be removed or disturbed until inspected by the archaeologist.
	<p>Indirect impacts: Temporary jobs will be created in the construction industry during the construction phase.</p>	Low - positive	<p>No mitigation measures are required.</p> <p>Temporary jobs will be created during the construction phase</p>
	<p>Cumulative impacts:</p>		
	<p>Direct impacts: Loss of vegetation</p> <ul style="list-style-type: none"> Direct loss of vegetation type and associated habitat due to construction and operational activities. 	Negligible	<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 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)

			<p>must be collected and removed from the site to a suitable registered waste disposal site.</p> <ul style="list-style-type: none"> All alien vegetation should be removed from all associated footprints within the various construction sites
	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.

• **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.

<p>Alternative A (preferred alternative)</p> <p>The following is a summary of the potential impacts, and their ratings after mitigation, and probability of occurrence:</p> <p><u>Construction phase.</u></p> <p>Freshwater ecosystems – Negligible probable.</p> <p>Loss of vegetation– Negligible, possible.</p> <p>Potential impacts on heritage resources – Negligible.</p> <p>Job creation – Low (Positive), definite.</p> <p>Noise impact - Negligible, definite, only during construction phase.</p> <p>Visual impact – Low (negative), definite, during construction</p> <p><u>Operational Phase</u></p> <p>Geographical and/or physical aspects - No impact expected</p> <p>Freshwater ecosystems – No impact expected</p> <p>Potential impacts on archaeological heritage – No impact expected</p> <p>Socio-economic (additional housing opportunities – Low (Positive), Probable</p> <p>Noise impact - No impact expected</p> <p>Visual impact – No impact expected</p> <p><u>Decommissioning</u></p> <p>The project as proposed does not require ‘decommissioning’ or ‘closure’, as such the potential impacts thereof is considered irrelevant.</p>
<p>Alternative B</p>
<p>Alternative C</p>
<p>No-go alternative (compulsory)</p> <p>No additional housing opportunities will be provided - Low – negative, Probable</p>

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 EMP 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