

environmental affairs

Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA

 File Reference Number:
 (For official use only)

 NEM:WA
 Waste
 Management
 Licence

 Application – 12/9/11/I1231/8
 NEMA Environmental Authorisation Application –

 NC/BA/08/NAM/KAR/SWE1/2013
 NC/P/EIA/0000211/2013

 Application Number:
 Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, 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, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
- 2. This report format is current as of **1 September 2012**. 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 becauseif it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
- 7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
- 8. No faxed or e-mailed reports will be accepted.
- 9. The signature of the EAP on the report must be an original signature.
- 10. The report must be compiled by an independent environmental assessment practitioner.
- 11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
- 12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

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

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? YES NO If YES, please complete the formentitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. **PROJECTDESCRIPTION**

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

It is proposed that a resort comprising of 20 units, with associated infrastructure, be constructed on Farm No. 127, Driefontein. All 20 units will be located at one of the farm dams. Please refer to Section A (2.b) below for a detailed description of the resort.

A portion of the farm will be rezoned from Agricultural Zone I to Resort Zone II to allow for the development of the resort.

Please note that an application for a resort comprising 20 units (spread over 4 different nodes around the farm) was authorised on 06 November 2009 (Ref. No. NC/NAM/DRIE1/2009) (Please refer to Appendix J2). However, the activity never commenced within the validity period, and the authorisation has since lapsed. This was due to additional approvals being issued by the National Department of Agriculture, Forestry and Fisheries (DAFF).

DAFF has since given approval for the consolidation of all the chalets in one node, hence the new layout.

This application is for the new proposed layout.

Each of the units is expected to produce a maximum of 500l wastewater (household sewerage and greywater) per day (182.5m³ per year). Combined, the 20 units will produce a maximum of 3650m³ per year. However, it must be noted that the volumes of wastewater may be significantly lower, since the resort will usually only be occupied on weekends and during the holiday seasons.

It is proposed that effluent/ sewerage and greywater be separated. A Septic tank and French drain system will be constructed for each unit for treatment of the wastewater. Treated effluent and greywater will either be collected in a separate tank for reuse as irrigation (if the water meets the necessary quality standards) or disposed of in the French drain system.

The size of the French drain will be determined by the permeability of the soil. Special attention to the location of the French drains will be made where the units are in close proximity to the farm dam or any watercourse.

Due to the system being constructed to treat a maximum of 3650m³ per year, a Waste Management Licence is required in terms of the National Environmental Management: Waste Act, 2008 (No. 59 of 2008).

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

<u>Application in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010.</u>

NEMA Environmental Authorisation Application – Ref. No. NC/BA/08/NAM/KAR/SWE1/2013 (NCP/EIA/0000211/2013)

Listed activity as described in GN R.544, 545 and 546	Description of project activity
Government Notice R544 (Listing Notice 1) – Activity 11	Buildings and associated infrastructure exceeding 50 square meters will be constructed within 32m of a watercourse (farm dam).
Government Notice R544 (Listing Notice 1) – Activity18	More than 5 square meters of soil, sand or rock may be moved or removed from the watercourse (farm dam)
Government Notice R546 (Listing Notice 3) – Activity 6	A resort that sleeps more than 15 people will be constructed. The site is in the Northern Cape, is located outside an urban area and will be within 100m of a watercourse

Waste Licence Application in terms of the National Environmental Management: Waste Act, 2008 (No. 59 of 2008)

NEM:WA Waste Management Licence Application - Ref. No. 12/9/11/I1231/8

INDICATE THE NO. & DATE OF THE RELEVANT NOTICE:	ACTIVITY NUMBERS (AS LISTED IN THE WASTE MANAGEMENT ACTIVITY LIST) :	DESCRIBE EACH LISTED ACTIVITY:
Gazette No. 32368, Government Notice 718 (03 July 2009).	Category A – Activity Number 11	The treatment of effluent, wastewater or sewerage with an annual throughput capacity of more than 2000 cubic meters, but less than 15 000 cubic meters
Gazette No. 32368, Government Notice 718 (03 July 2009).	Category A – Activity Number 18	The construction of facilities for activities listed in Category A of this Schedule (not in isolation to associated activity).

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 Regulation 22(2)(h) of GN R.543.Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004.Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided.The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)				
Description	Lat (DDMMSS)	Long (DDMMSS)		
Alterna	tive 2			
Description	Lat (DDMMSS)	Long (DDMMSS)		
Alterna	tive 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
- Alternative S3 (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.

b) Lay-out alternatives

Two lay-out alternatives have been considered. Alternative 1 is the preferred alternative. This was decided upon after Alternative 2 (which was previously approved on 09 November 2009). However, the layout was not approved by the Department of Agriculture, Forestry and Fisheries in their letter dated 14 April 2010 (please see **Appendix J2**).

Instead of having the 20 chalets located within four development nodes dispersed across the farm (see figure 1 below), it was decided to have the 20 chalets concentrated in one node, thereby decreasing the impact on farming activities on the farm. This was approved by the Department of Agriculture, Forestry and Fisheries in their letter dated 13 December 2012.

Node 1 Node 2 Node 3 No

The two layout alternatives are described below.

Figure 1: Aerial view of the proposed development nodes

Alternative 1 (preferred alternative)			
Description	Lat (DDMMSS)	Long (DDMMSS)	
The preferred alternative is located at what is referred to as Node refer to figure 1 above and photo 1.1 of the Planning Report (App	· · · · · · · · · · · · · · · · · · ·	the property (please	
Alternative 1 layout comprises of 20 erven of 1000m ² each. The to resort Zone II.	erven will be rezoned from	Agricultural Zone I	
The design of the chalets will be according to the Architectural ((Appendix D1) and the Architectural guidelines (Appendix D2)	guidelines, as described in	the planning report	
Alternative 2			
Description	Lat (DDMMSS)	Long (DDMMSS)	
	See below		

Alternative 2 layout comprises of four nodes, each with its own character (refer to the Architectural Guidelines **Appendix D2**), containing a cluster of between two to six units (each 140-350m²), sited along the edge of three different dams and one fountain spring. By planning for the individual orientation and placement of each building in advance, unobstructed views over the open veldt and dams are ensured, without compromising on privacy. Each chalet will have its own private area of 1000m².

Initially six different nodes were proposed, but two were discarded.

Node 1: (Trout Dam) (S 32°26' 00.2" E 20°26' 36.3")

Comprises of 6 Chalets placed south of the dam fronting in the Northern direction.

Node 2: (Long Dam) (S 32°26' 46.8" E 20°27' 01.7")

Comprises of 5 Chalets placed south of the dam also fronting in the Northern direction.

Node 3: (Blue Dam) (S 32°26' 59.9" E 20°28' 01.7")

Comprises of 7 Chalets placed west of the dam also fronting in the Northeastern direction.

Node 4: Spring with old garden (S 32° 26 26.3 E 20° 28' 09.5)

Comprises of 2 Chalets placed in-between the garden and fountain springs.

This layout of the chalets was deemed a viable alternative by the applicant and developers as very little environmental impact is expected to occur. The placement of the chalets and the number are as such to limit the visual impact on the farm as well as to keep the development as low as possible to enhance the beauty and tranquillity for the people wanting to experience this.

This layout was previously approved by the Department of Environment and Nature Conservation. However, this layout was not approved by the Department of Agriculture, Forestry and Fisheries.

Alternative 3			
Description	Lat (DDMMSS)	Long (DDMMSS)	

c) Technologyalternatives N/A

Alternative 1 (preferred alternative)		
Alternative 2		
Alternative 3		

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

Two alternatives for the treatment/disposal of effluent have been considered.

Alternative 1 (preferred alternative)

The preferred alternative is to have a Septic tank and French drain system for each unit.

It is proposed that effluent/sewerage and greywater be separated. A Septic tank and French drain system will be constructed for each unit for the treatment of the wastewater. Treated effluent and greywater will either be collected in a separate tank for reuse as irrigation (if the water meets the necessary quality standards) or disposed of in the French drain system.

The size of the French drain will be determined by the permeability of the soil. Special attention to the location of the French drains will be made where the units are in close proximity to the farm dam or any watercourse.

Each of the units is expected to produce a maximum of 500l wastewater (household sewerage and greywater) per day (182.5m³ per year). Combined, the 20 units will produce a maximum of 3650m³ per year. However, it must be noted that the volumes of wastewater may be significantly lower, since the resort will usually only be occupied on weekends and during the holiday seasons.

This is the preferred alternative as it is more cost effective for the applicant. If constructed properly and in the correct locations taking aquatic ecosystems into consideration, and the systems are well managed and maintained, their potential impact on biodiversity or aquatic ecosystem are considered to be negligible. Please refer to the Engineering Report, **Appendix D3**).

Alternative 2

The second alternative is for the wastewater (effluent) to be temporarily stored in storage tanks, which will then be removed by a licenced operator or in agreement with the municipality via a honey sucker system, and be taken to a licenced municipal waste water treatment works for disposal/treatment.

This system will only be considered if approval for the Septic tank and French drain systems is not given by the Competent Authorities. This is also not the preferred alternative for the applicant as it is a more costly.

Alternative 3

e) No-go alternative

The no-go option, which would preclude any development, was considered, but would only have been recommended if it were found that the establishment of a Karoo Resort in this area might potentially cause substantial detrimental harm to the environment.

This option would have to be either the choice of the landowner; dictated by spatial planning requirements, or result from residual (after mitigation) biophysical, ecological or social impacts of high significance.

A No-go option would result in no negative impacts, but neither would the public be given the opportunity to experience the Sutherland and surrounding Karoo area.

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)

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative) Alternative A2 (if any)

Size of the activity:

Approximately 7000m ²	
Approximately 7000m ²	
	m ²

Length of the activity:

m
m

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

Alternative A3 (if any)

m

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

Alternative:

Alternative A1 (preferred activity alternative) Alternative A2 (if any) Alternative A3 (if any)

4. SITE ACCESS

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

Size	of	the	site	ser	vitu	ide:

m ²
m²
m ²

YES	NO				
Approximately 600m					

Describe the type of access road planned:

Access to the farm is from the existing Bo-Visrivier dirt road from Sutherland. Access to development node will be gained from this main road by using existing tracks as far as possible. A new road of approximately 600m will be required from the existing access road to the site.

The roads will be approximately 3.8m in width and will be constructed from in-situ material (dirt road). Not all the existing roads are in peak condition and therefore some will need to be upgraded. All roads leading to the chalets will receive servitudes. Specific care will be taken not to damage the natural vegetation, and the final road route should be decided by the engineer and the Environmental Control Officer.

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 50metres 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 DWA);
- 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
No, part of the property will be rezoned from Agriculture I to Resort II to allow for Planning Report (Appendix D1).	or the act	ivity. Ple	ease refer to the
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The Karoo Hoogland Municipality has an active integrated development p documents also promote the development of resorts as described as eco-touris its regulations.	-		
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
The site is located outside the urban edge			
(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
The Karoo Hoogland Municipality has an active integrated development p documents also promote the development of resorts as described as eco-touris its regulations.			
According to the Karoo Hoogland Municipality IDP (2009-2011), Prioritized Municipality include: - Tourism, i.e. eco-tourism, agri-tourism and astro-tourism	areas of	potenti	al in the whole
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
The Karoo Hoogland Municipality has an active integrated development product documents also promote the development of resorts as described as eco-tourist its regulations.			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
The Department of Environmental Affairs and Tourism are in the process to Karoo Hoogland Municipality will be part of.	o compile	e a disti	ict EMF, which
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
N/A			

	1	1	
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The Karoo Hoogland Municipality has an active integrated development p documents also promote the development of resorts as described as eco-touri its regulations.			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
The development will bring additional capital into the area as well as p opportunities during the construction phase of the development.	roviding	tempora	ary employment
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
Sufficient services are available on the site. The development will not be relia solid waste. However, the volumes of general household waste is expected to		nicipal	services, except
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
Sufficient services are available on the site. The development will not be relian solid waste. However, the volume of general household waste is expected to be		cipal se	rvices, except
7. Is this project part of a national programme to address an issue of national concern or importance?	YES	NO	Please explain
N/A		-	1
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 ideally located for the development of a resort of this kind and weekend breakaways as well as during holiday seasons, providing a feeling of			

9. Is the development the best practicable environmental option for this land/site?	YES	NO	Please explain				
Although the no-go option would not cause any potential negative environmental impacts and could therefore be considered as the best practicable environmental impacts, the positive socio-economic impacts would not be realized (giving the public the opportunity to experience the Southerland and surrounding Karoo area)							
 However, the environmental impact is expected to be low due to the following results of the environmental impact is expected to be low due to the following results area has the fewest landscape features or habitats such as watered considered to be the least sensitive site and the most suitable for deversion uniform over a wide area and consequently no botanical constraints on identified. No archaeological remains were documented at the site, no tools or flat outcrop, no archaeological remains were found in the proposed access results. 	ourses or lopment. ⁻ the propos	The ve sed de	egetation type is velopment were				
The socio-economic benefits would therefore greatly outweigh any potential ne	gative imp	act.					
10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?	YES	NO	Please explain				
See Point 9 above							
11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain				
The establishment of additional resorts in the area in future may be possible. the IDP for the municipality.	However,	touris	m is a priority of				
12. Will any person's rights be negatively affected by the proposed activity/ies?	¥ ES	NO	Please explain				
The rights of any persons are not expected to be negatively impacted. No co public during the initial round of public participation	mments v	vere re	ceived from the				
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain				
The activity is for a resort development consisting of 20 chalets on an isolated	section of	a farm					
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain				
N/A							
15. What will the benefits be to society in general and to communities?	the lo	ocal	Please explain				
The proposed activity will provide potential job opportunities during the const the majority of which will go to previously disadvantaged individuals.	truction ar	nd ope	rational phases,				

16. Any other need and desirability considerations related to the proposed activity?	Please explair
The Sutherland area, and especially the town Sutherland itself, are increasingly playing a vi tourism in the Northern Cape Province. People from the city and busier living areas are prefe to more remote areas for the peace and quite it offers over weekends as well as during holic Sutherland road has also increased in tourism for its clear skies as well as the star gazing of has the largest telescope in the world.	rring to move ou day seasons. The
The locality of the farm in regards to Sutherland with its open natural vegetation and the unsp is the farm's greatest asset. This type of property has great tourism destination potential for open valleys. With the development as planned, it will bring increased capital into the area employment especially during the construction phase of the development. A continues inf growth will also take place as more and more people flock to the area to invest.	all seeking quite as well as highe
People will be able to enjoy various recreational activities on the farm such as: Residential units, hiking, fishing, water recreation (such as canoeing - no water boats), moun riding etc.	tain biking, horse
Strict rules will be laid down, which must be adhered to by all people entering or living on the farm's remoteness, tranquility an enjoyable experience for all. Even though most of the Chale be built in close proximity to an existing dam on the farm, all the dams will be kept within the and remained zoned as such. The development as described will in no way interfere with cu activities on the farm.	ets are planned to agriculture secto
The development therefore proposes to provide the opportunity for the public to enjoy So surrounding beauty by visiting Driefontein and enjoying all it has to offer.	utherland and its
17. How does the project fit into the National Development Plan for 2030?	Please explair
18. Please describe how the general objectives of Integrated Environmental M set out in section 23 of NEMA have been taken into account.	lanagement as
 The general objectives of Integrated Environmental Management have been taken into according: The actual and potential impacts of the activity on the environment, socio-economic cultural heritage have been identified, predicted and evaluated, as well as the risks are and alternatives and options for mitigation of activities, with a view to minimizing maximizing benefits and promoting compliance with the principles of environmental man The effects of the activity on the environment have been considered before actions take with them – <i>alternatives have been considered and investigated</i> 	c conditions and nd consequences negative impact agement

- Adequate and appropriate opportunity for public participation was ensured through the public participation process please refer to **Appendix E** 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.
- The environmental attributes have been considered in the management and decision-making of the activity anEMP has been included (**Appendix G**) with the proposed activity and must adhere to the requirements of all applicable state Authorities.

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

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:

- People and their needs have been placed at the forefront while serving their physical, psychological, developmental, cultural and social interests the proposed activity will have a beneficial impact on people, as it will provide much needed additional housing opportunities.
- 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. *Although the activity is expected to have a low botanical impact, these impacts have been considered, and mitigation measures have been put in place. This is dealt with in the EMP (Appendix G).*
- 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 no exploitation of non-renewable natural resources occurs with the proposed activity.
- 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 *refer to Section F below*.
- 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* **Appendix E** 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 F 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 F and in the EMP are implemented.

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		
Northern Cape Planning & Development Act 7 of 1998 application	Rezoning from Agricultural I to Resort II	Karoo Hoogland Municipality	Approved (Appendix J4)		
Environmental Authorisation	Activity triggers listed activities listed under the NEMA Regulations 2010	Department of Environment and Nature Conservation (Northern Cape)	This application		
Heritage application	Activity requires a permit in terms of Section 38 of the National Heritage Resources Act, (Act 25 of 1999)	SAHRA	Pending		
Waste Licence Application	Activity triggers listed activities listed under National Environmental Management: Waste Act, 2008 (No. 59 of 2008).	Department of Environmental Affairs	This application		

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

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

YES	NO
Unknow stage bu quantitie expected minimal	it s are

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

The only construction solid waste expected is general builders rubble, which will be disposed of at the Municipality's solid waste site in Sutherland approximately 20km form the farm.

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

At the nearest licensed waste disposal site, which is the Municipality's solid waste site in Sutherland approximately 20km form the farm.

Will the activity produce solid waste during its operational phase? If YES, what estimated quantity will be produced per month? How will the solid waste be disposed of (describe)?

YES	NO
	m ³

Only minimal amounts of domestic waste is expected, and this will be disposed of at the Municipality's solid waste site in Sutherland approximately 20km form the farm

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

Waste (general household domestic waste) will be disposed of at the nearest licenced waste disposal site, which is the Municipality's solid waste site in Sutherland approximately 20km form the farm.

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

N/A. Waste (general household domestic waste) will be disposed of at the nearest licenced waste disposal site, which is the Municipality's solid waste site in Sutherland approximately 20km form the farm.

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 scop	bing and	EIA. An
application for a waste permit in terms of the NEM:WA must also be submitted with this	s applicat	ion.

Is the activity that is being applied for a solid waste handling or treatment facility? <u>YES</u> 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?

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

Each of the units is expected to produce a maximum of 500l wastewater (household sewerage and greywater) per day (182.5m³ per year). Combined, the 20 units will produce a maximum of 3650m³ per year. However, it must be noted that this is the maximum capacity that the treatment facility will be able to treat, and the volumes of wastewater may be significantly lower, since the resort will usually only be occupied on weekends and during the holiday seasons.

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

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

The preferred alternative is to have a Septic tank and French drain system for each unit.

It is proposed that effluent/sewerage and greywater be separated. A Septic tank and French drain system will be constructed for each unit for the treatment of the wastewater. Treated effluent and greywater will either be collected in a separate tank for reuse as irrigation (if the water meets the necessary quality standards) or disposed of in the French drain system.

The size of the French drain will be determined by the permeability of the soil. Special attention to the location of the French drains will be made where the units are in close proximity to the farm dam or any watercourse.

Will	the	activity	produce	effluent	that	will	be	treated	and/or	disposed	of	at	another	
facil	ity?													Y
D	10.00	And the second second	Aller and a second	and the second	and the second		I				1		and the second second	

Possibl	y taken	to the	nearest	licenced	munic	ipal waste	water	treatment	works	via a	ı honey
sucker	(Alterna	tive 2)									
				C (1	e						

ES	NO

YES

YES

NO

m³

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:

c) Emissions into the atmosphere

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

YES NO

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:

N/A

d) Waste permit

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

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

A Waste Licence Application has been lodged with the National Department of Environmental Affairs. NEM:WA Waste Management Licence Application – 12/9/11/I1231/8 (please refer to **Appendix J1**)

e) Generation of noise

Will the activity generate noise?

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

YES	NO
YES	NO

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.

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

N/A. The activity is not expected to generate significant noise. Normal traffic will occur as currently experienced with very little added noise. Normal noises will occur as generally found with secluded resort developments.

13. WATER USE

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

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	The act not use	ivity will e water
If water is to be natural feature, In order to dete standards were u						
• One Chalet: 600 l/day (0.6kl/day). Therefore the daily average for the resort (20 units) will be approximately 12 000l/day						
The chalets will gain water from existing boreholes on the farm. The possibility of changing the windmills on the farm to sun pumps will also be investigated so that the water can be pumped to each chalet's own water tank. The tank will be designed to store at least 48h of water supply at any given time. If the windmills remain, a 72 hour storage capacity will be provided. Three to four 10 000l tanks will therefore be required for sufficient storage capacity.						litres
<u>Please take note</u> that the chalets will mainly be occupied only over weekends and during vacation periods.						
	ty require a water m the Department			isation or water	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, that have been taken to ensure that the activity is energy efficient:

There is existing Eskom power on the farm, but are not envisaged for the chalets. Alternative means of power such as gas, sunpower, windpower or diesel generations will be used.

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

Alternative means of power such as gas, sunpower, windpower or diesel generations will be used.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

Section BCopy No. (e.g. A):

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

3. Has a specialist been consulted to assist with the completion of this section? YES NO If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property	Province	Northern Cape
description/physi cal address:	District Municipality	Namakwa District Municipality
	Local Municipality	Karoo Hoogland Municipality
	Ward Number(s)	Sutherland
	Farm name and number	Farm No. 127, Driefontein, situated 22km west from Sutherland on the Bo-Visrivier Road, Northern Cape.
	Portion number	
	SG Code	C0720000000012700000
	0	of properties are involved (e.g. linear activities), please application including the same information as indicated

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

Agricultural Zone I

above.

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

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

YES NO

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Alternative OI	•					
Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
						than 1:5
Alternative S2	! (if any):					
Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
						than 1:5
Alternative S3	(if any):	•		•		
Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper
						than 1:5

2. LOCATION IN LANDSCAPE

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

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

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alterna	tive S1:		Alternat (if any):		Alternat (if any):	
Shallow water table (less than 1.5m deep)	YES	NO		YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	Ī	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	Ī	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	Ī	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	Ī	YES	NO	YES	NO

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

4. GROUNDCOVER

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

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

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

5. SURFACE WATER

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

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

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

The site is located near one of the large farm dams along the Visrivier–Oos River

6. LAND USE CHARACTER OF SURROUNDING AREA

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

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial AN	Train station or shunting yard N	Mountain, koppie or ridge
Heavy industrial AN	Railway line ^N	Museum

BASIC ASSESSMENT REPORT

Power station	Major road (4 lanes or more) N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

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

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? Unknown, but due to the nature of the	YES	NO

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

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999),	YES	NO
including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	Unce	ertain
Please see below and refer to the Archaeological Impact Assessment (Appendix D5),		

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 Archaeological Impact Assessment (**Appendix D5**), the site is situated on the northern bank of a large farm dam, about 400m south of the Bo-Visriver Road, and about 500 m from the entrance to Driefontein Farm. A new road will have to be built to access the proposed site. The site is covered in low bush and scrub and is very rocky and stony, with some open patches occurring in places. The proposed site is fairly level, but slopes gently toward the farm dam. There are no significant landscape features that occur on the proposed site, but a dolerite ridge about 350 m to the east of the proposed site was inspected for archaeological remains.

Findings:

- No archaeological remains were documented at the site.
- No tools or flakes were found near the dolerite outcrop.
- No archaeological remains were found in the proposed access road.

Recommendations:

- A specialist palaeontologist must be appointed by the developer to inspect excavations and road cuttings, for possible vertebrate (bone) fossil during the Construction Phase of the project. Consulting palaeontologist Dr John Almond (021 462 3622) can be contacted in this regard.

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.

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:

According to Stats SA, the Karoo Hoogland Municipality has an Unemployment Rate of 14.6%

Economic profile of local municipality:

According to the Arid Areas Programme 2007, the main employment in the Karoo Hoogland Municipality is agriculture, followed by community/social/personal sector, the private households and retail/wholesale. However, tourism, especially in the Sutherland area has increased significantly in the previous years.

Level of education:

Undetermined

b) Socio-economic value of the activity

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

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

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

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

What percentage of this will accrue to previously disadvantaged individuals? How many permanent new employment opportunities will be created during the operational phase of the activity?

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

What percentage of this will accrue to previously disadvantaged individuals?

9.	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			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)	According to SANBI BGIS, no CBA's were identified on site

R20 000 000					
R120 000	R120 000				
YES	NO				
YES	NO				
40					
R1 000 000					
90%					
4					
R250 000/year					
50%					

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)	100%	According to the biodiversity assessment (Appendix D4) the site is relatively flat and has typical 'brown' vegetation – low woody, mainly composite shrubs, also some vygies (mesembs), notably <i>Ruschiaspinescens</i> (doringvygie) and very low grass. The site has the fewest landscape features or habitats such as watercourses or rocky ridges and so is considered to be the least sensitive site and the most suitable for development. The vegetation type is uniform over a wide area and consequently no botanical constraints on the proposed development were identified.
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	%	

Complete the table to indicate: C)

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

Terrestrial Ecosystems		Aquatic Ecosystems						
Ecosystem threat	Critical		``	ling rivers,				
status as per the National	Endangered		•	Innelled and		1010/	Coastline	
Environmental	Vulnerable	unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastime	
Management:	Least							
Biodiversity Act (Act No. 10 of 2004)	Threatened	YES	NO	UNSURE	YES	NO	YES	NO

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

According to the Biodiversity Assessment (**Appendix D4**) the vegetation found on Driefontein 127 is all Roggeveld Shale Renosterveld. This widespread vegetation type is not formally conserved in statutory reserves but has been rated with a conservation rating of LEAST THREATENED in the National Spatial Biodiversity Assessment (Rouget*et al.* 2004).

According to the biodiversity assessment the site has the fewest landscape features or habitats such as watercourses or rocky ridges and so is considered to be the least sensitive site and the most suitable for development. The vegetation type is uniform over a wide area and consequently no botanical constraints on the proposed development were identified.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Die Burger				
Date published	23 May 2013 (refer to Appendix E1)				
Publication name	Noordwester	Noordwester			
Date published	23 May 2013 (refer to Appendix E1)				
Site notice position	Latitude	Longitude			
_	32 ⁰ 26' 35.64" S	20 ⁰ 27' 47.41" E			
Date placed	25 May 2013				

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 54(2)(e) and 54(7) of GN R.543.

- Notification letters were posted to neighbouring landowners
- Letter drops were done notifying adjacent landowners
- Site notice was placed at the entrance to the farm on which the activity will take place
- Two newspaper advertisements were placed: one in the local newspaper (Noordwester) and one in the regional newspaper (Die Burger)

Key stakeholders (other than organs of state) identified in terms of Regulation 54(2)(b) of GN R.543:

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)		
Mr J de Wee	Ward Councillor	023 5711351		
Mr J Symington	Sutherland Ratepayers Association	023-5711 035		
The Municipal Manager	Karoo Hoogland Municipality	023 571 1020		
C. Theron	Neighbour	023-571 2624		
A. Du Plessis	Neighbour	079 680 4895		
C. Visagie	Neighbour	023-571 1029		
N. Van der Merwe	Neighbour	023-571 2631		
K. Esterhuyse	Neighbour	023-571 2729		
B. Esterhuyse	Neighbour	023-571 2605		

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 comment was received from I&APs during the initial round of public participation	

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.

No comment was received from I&APs during the initial round of public participation

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Orga n of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
Dept. Environmental - Ncape	Mr W. Jacobs	0538074 825	0538321 035	wjacobs@half.ncape.g ov.za	Private Bag X6102, Kimberley 8300
SAHRA-Northern Cape	Manager	053- 8312537	053- 8331435	ksofeleng@nc.sahra.or g.za	PO Box 1930, Kimberley, 8300
NC Dept. Agriculture & Land reform	Head of Department	053- 8389100	053- 8324328	enquiries@agrinc.gov.z a	162 George Street, Kimberley, 8300
DAAF Northern Cape	Ms. J. Mans	054- 3385909	**	<u>JacolineMa@daff.gov.z</u> <u>a</u>	Private Bag X5912, Upington
Department of Water Affairs	Ms R. Mazwi	0538 307 601	0538 423 258	<u>MazwiR@dwa.gov.za</u>	Private Bag X6101, Kimberley 8300
Dept of Agriculture, Land Reform and Rural Development	Mr. G. Steenkamp	0273 411 238	0273 411 720	gsteenkamp@calsaam. ncape.gov.za	P.O. Box 65, Calvinia, 8190
SAHRA	Kathryn Smuts	021 462 4502	021 462 4509		PO Box 4637, Cape Town 8000
Karoo Hoogland Municipality	Louis Nothnagel	053 391 3003	053 391 3294		Private Bag X03, Williston, 8920

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 (linearor 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 thepublic 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, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

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

Provide a summary and anticipated significance of thepotential 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 alternativesas 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.

rticular attention must be paid to locating ch unit and the access roads sensitively as to minimize impact on the vegetation. ecific habitats such as rocky outcrops, nen-covered boulder fields and tercourses must be identified in the nning process and measure taken to bid such areas. At all times the proposed ts should be placed in on sites where the getation is 'typical' renosterveld as
ch unit and the access roads sensitively as to minimize impact on the vegetation. ecific habitats such as rocky outcrops, nen-covered boulder fields and tercourses must be identified in the nning process and measure taken to bid such areas. At all times the proposed ts should be placed in on sites where the getation is 'typical' renosterveld as
bosed to places where there may be ecial habitats. ECO must be appointed during the nstruction phase. al placement of chalets and roads should in consultation with the ECO to avoid any ssible sensitive features. sting access roads should be used for cess to the terrain as far as possible. cess roads must be clearly demarcated d access must be tightly controlled eviations may not be allowed). discriminate clearing of areas must be bided (all remaining areas to remain as cural as possible). topsoil (at all excavation sites) must be noved and stored separately for re-use for tabilitation purposes. The topsoil and getation should be replaced over the turbed soil to provide a source of seed d a seed bed to encourage re-growth of species removed during construction. ce the construction is completed all

Activity	Impact summary	Significance	Proposed mitigation
			access tracks to allow the vegetation to re- establish over the excavated areas.
	Visual impact (operational phase)	Negligible	Specific placement of the chalets as well as their design (colour and building materials) will help to ensure the visual integrity of the farm
	Indirect impacts:		
	Cumulative impacts: Loss of habitat (Roggeveld Shale Renosterveld	Negligible	 Similar vegetation and habitats are found extensively on other parts of the farm that will not be affected by development and Roggeveld Shale Renosterveld is much more widespread than just at this farm.
Effluent treatment/disposal Alternative 1 (Preferred Alternative)	<i>Direct impacts:</i> Pollution of water sources as a	Low to negligible	• Appoint a suitably experience ECO during the construction phase of the project.
	result of poorly treated effluent, waste management.		• Special attention to the location of the French drains will be made where the units are in close proximity to the farm dam or any watercourse.
			 Ongoing management of the septic tank system in crucial, including proper record keeping of maintenance, educating residents/visitors of flushing harmful materials into the system, Pumping out/maintaining the septic tank on a regular basis. Maintaining and repairing the system as soon as warning signs that the system is not working efficiently or failing. Contact a specialist in case of any major malfunctions of the system
	Indirect impacts:		
	Cumulative impacts:		
Alternative 2	1		
Layout alternative 2	Direct impacts: Loss of vegetation	Low (negative)	 Particular attention must be paid to locating each unit and the access roads sensitively so as to minimize impact on the vegetation. Specific habitats such as rocky outcrops, lichen-covered boulder fields and watercourses must be identified in the planning process and measure taken to avoid such areas. At all times the proposed units should be placed in on sites where the vegetation is 'typical' renosterveld as opposed to places where there may be special habitats. An ECO must be appointed during the

Activity	Impact summary	Significance	Proposed mitigation
	Indirect impacts:		 construction phase. Final placement of chalets and roads should be in consultation with the ECO to avoid any possible sensitive features. Existing access roads should be used for access to the terrain as far as possible. Access roads must be clearly demarcated and access must be tightly controlled (deviations may not be allowed). Indiscriminate clearing of areas must be avoided (all remaining areas to remain as natural as possible). All topsoil (at all excavation sites) must be removed and stored separately for re-use for rehabilitation purposes. The topsoil and vegetation should be replaced over the disturbed soil to provide a source of seed and a seed bed to encourage re-growth of the species removed during construction. Once the construction is completed all further movement must be confined to the access tracks to allow the vegetation to re-establish over the excavated areas.
	Cumulative impacts: Loss of habitat (Roggeveld Shale Renosterveld	Negligible	 Similar vegetation and habitats are found extensively on other parts of the farm that will not be affected by development and Roggeveld Shale Renosterveld is much more widespread than just at this farm.
Effluent treatment/disposal Alternative 2(honey sucker removal)	Direct impacts: Pollution of water sources as a result of waste spillage during removal	Negligible	 Equipment must be regularly inspected and serviced. An emergency plan, including equipment, emergency numbers, must be drafted before this method of waste removal can be implemented.
	Indirect impacts:		
	Cumulative impacts:		
Alternative 3	L	1	
	Direct impacts:		
	Indirect impacts:		
	Cumulative impacts:		
	Direct impacts:		

Activity	Impact summary	Significance	Proposed mitigation	
	Indirect impacts:			
	Cumulative impacts:			
No-go option				
	Direct impacts:			
	Indirect impacts:			
	Cumulative impacts:			

A complete impact assessment in terms of Regulation 22(2)(i) of GN R.543 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 <u>after</u> 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. Potential impact on freshwater ecosystems– Negligible Loss of vegetation type and habitat including plant species due to construction activities(Alternative 1) - Negligible Job creation – Low - Positive Loss of cultural or historic aspects – Negligible Noise impact - Negligible Visual impact – Negligible
Operational Phase Impact on freshwater ecosystems in event of malfunction and effluent/untreated wastewater overflow occurs(Alternative 1) – Low – negative to negligible Impact on biological aspects – No impacts are envisaged Impact on socio-economic aspects – Low – Positive Loss of cultural or historic aspects – No heritage or cultural aspects is expected to be impacted during the operational phase. Noise impact – No impacts expected Visual impacts – No impacts expected
Decommissioning The project as proposed does not require 'decommissioning' or 'closure', as such the potential impacts thereof is considered irrelevant.

Alternative B

Construction phase.
Potential impact on freshwater ecosystems- Negligible
Loss of vegetation type and habitat including plant species due to construction activities (Alternative 2) - Low
- negative
Job creation – Low - Positive
Loss of cultural or historic aspects – Negligible
Noise impact - Negligible
Visual impact – Negligible
Operational Phase
Impact on freshwater ecosystems in event of malfunction and effluent/untreated wastewater overflow occurs
(Alternative 2) –Negligible
Impact on biological aspects - No impacts are envisaged
Impact on socio-economic aspects – Low – Positive
Loss of cultural or historic aspects - No heritage or cultural aspects is expected to be impacted during the
operational phase.
Noise impact – No impacts expected
Visual impacts – No impacts expected
Decommissioning
The project as proposed does not require 'decommissioning' or 'closure', as such the potential impacts thereof
is considered irrelevant.

Alternative C

No-go alternative (compulsory)

The No-go option, which would preclude any development, was considered, but would only have been recommended if it were found that the establishment of a Karoo Resort in this area might potentially cause substantial detrimental harm to the environment.

The No-go option will mean that no expansion of ecotourism developments will cause no economic growth in the Sutherland area and will also not provide people with the opportunity to experience the great tranquillity experience of Karoo farm living. There will also be no potential job opportunities created.

It will ensure that none of the potential impacts above occur. The current status quo will remain and there will be no impact (even temporarily) on the vegetation or freshwater ecosystems.

The potential negative impacts are considered to be low to negligible, and the socio-economic benefits of the proposed activity are considered to outweigh any of the potential negative impacts.

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.

<u>General</u>

Environmental Control Officer

• An Environmental Control Officer (ECO) to be appointed during construction to monitor compliance with the terms as set out in the EMP, and ROD.

Construction:

- A Construction Environmental Management Plan (CEMP) must be implemented
- All necessary environmental controls to be discussed with the contractors on site before construction starts.
- The construction area to be marked before construction starts to prevent damage to surrounding natural vegetation.
- All mandatory equipment as described in the CEMP must be in place prior to commencement of any construction.
- Method statements to be provided to ECO/Environmental consultant if any alterations, and/or deviations take place or if ECO requests one
- A physical site inspection must be conducted with the Environmental Consultant/ECO and the Contractor to establish the following:
 - Vehicle access routes
 - No-go areas
- Storage areas for equipment must be demarcated by ECO before construction commences.

Management of site

- Only the erven of approximately 1000m² of each of the 20 new chalets be rezoned to Resort II and subdivided for purposes of selling, with the communal ground between and around the units being rezoned to Open Space (Private Open space)
- No other construction or disturbance i.e. gardens, fences, etc for the chalets should be allowed. Only a low wall will be allowed to surround each Chalet for more privacy.
- The final layout of the chalets be to the satisfaction of 1) Architect, 2) DENC and then 3) the local authority
- All other legal permissions / licenses be obtained;
- Road access to the chalets is limited to the existing farm access roads as far as possible, with each road to receive its own servitude.
- The solid waste be brought to a central waste removal point from where it should be removed on a weekly basis by the applicant to his current farm's existing solid waste facility;
- Compliance with the design/building guidelines as well as specific House rules set out for the Driefontein Resort
- Annual Environmental audit be conducted until all the sites are developed.
- Ongoing management of the septic tank system in crucial, including
- proper record keeping of maintenance,
 - educating residents/visitors of flushing harmful materials into the system,

- Pumping out/maintaining the septic tank or regular basis
- Maintaining and repairing the system as soon as warning signs that the system is not working efficiently or failing.
- Contact a specialist in case of any major malfunctions of the system

Botanical

- This area has the fewest landscape features or habitats such as watercourses or rocky ridges and so is considered to be the least sensitive site and the most suitable for development. The vegetation type is uniform over a wide area and consequently no botanical constraints on the proposed development were identified.
- Particular attention must be paid to locating each unit and the access roads sensitively so as to minimize impact on the vegetation. Specific habitats such as rocky outcrops, lichen-covered boulder fields and watercourses must be identified in the planning process and measure taken to avoid such areas. At all times the proposed units should be placed in on sites where the vegetation is 'typical' renosterveld as opposed to places where there may be special habitats.

Heritage/Archaeology

• A specialist palaeontologist must be appointed by the developer to inspect excavations and road cuttings, for possible vertebrate (bone) fossil during the Construction Phase of the project. Consulting palaeontologist Dr John Almond (021 462 3622) can be contacted in this regard.

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