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:	Calvinia Abattoir Ramskop KLK		
Business reg. no. /ID. no.:	68/05117/07		
Contact person:	Francois Nel		
Postal address:	P. O. Box 74, Calvinia, 8190		
Telephone:	027 218 2243	Cell:	083 667 7527
E-mail:	cois@klk.co.za	Fax:	

Prepared by:

Environmental Assessment Practitioner/Firm:	EnviroAfrica CC		
Business reg. no. /ID. no.:	CK 97 46008/23		
Contact person:	Emile Esquire/ Bernard de Witt		
Postal address:	P.O. Box 5367, Helderberg, 7135		
Telephone:	021 851 1616	Cell:	074 587 2399
E-mail:	emile@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

The proposed expansion of Calvinia Ramskop Abattoir, Erf 3562, Calvinia, Northern Cape.

Ramskop Abattoir Calvinia, is currently registered to slaughter 600 sheep/ goats per day. It is proposed that the slaughter capacity be increased from 600 sheep (100 Units) to 1000 sheep/goats per day (167 Units).

All waste products, as well as deceased sheep or carcasses (condemned material), gets buried in trenches at a designated area adjacent to the abattoir. These disposal trenches of 1.5m deep and all condemned carcasses / material gets disposed in the 1.5m deep trenches at the site. The condemned carcasses / material gets neutralized with lime and covered with soil. The trenches get closed immediately after the lime was added.

All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. Blood gets separated when head is removed, then the blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia Wastewater Treatment Plant ("WWTP"), and any other remaining solid waste than also gets buried in the trenches mentioned above.

Ramskop abattoir installed a flowmeter on their pipeline at the inlet of the municipality's WWTP. (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers. Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTP's inlet) for analysis.

The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, putrid odour and vermin nuisance conditions. The burial site (trenches) is clearly marked and locked for safety and security reasons.

Two groundwater monitoring boreholes were drilled on both sides of the burial site (trenches), each approximately 40m deep. The one borehole is located at the south-western corner of the burial site and has the following co-ordinates: 31°28'19.08"S ; 19°45'36.50"E and other borehole is located to the west of the burial site with the following co-ordinates: 31°28'15.68"S ; 19°45'40.54"E. There are no water present in both the groundwater monitoring boreholes. Both boreholes had no water at the time of drilling. Groundwater monitoring on the two boreholes will be done twice a year, during the winter months and during the summer months.

The site co-ordinates are **31°28'16.88"S 19°45'41.81"E**. Please refer to figures 1 – 3 below for the locality of the proposed site.

Figure 1: Arial image showing the location of the proposed site and the surrounding areas. Ramskop abattoir (yellow polygon) and burial site (red polygon).

Figure 2: Arial image showing the location of the proposed site and the surrounding areas. Ramskop abattoir (yellow polygon) and burial site (red polygon).

Government Notice R327 (Listing Notice 1):
Activity no. 38: The expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased by more than—
(i) 50 poultry;
(ii) 6 units of reptiles, red meat and game; or
(iii) 20 000 kg wet weight per annum of fish, crustaceans or amphibians.

The Ramskop abattoir is currently registered to slaughter **600** sheep/ goats per day (**100 Units**). According to the **Red Meat Regulations** (**2004**)-
"unit" in relation to a quantity standard for determining throughput for red meat, means -
(i) one cow, ox or bull or two calves;
(ii) one horse;
(iii) six sheep or goats; or
(iv) four small pigs (porkers) or two bacon pigs or one sausage pig".

It is proposed that the slaughter capacity be increased from **600 to 1000** sheep/goats per day (**167 Units**). The proposed development will exceed the expansion threshold of 6 units of red meat.

Site Description

The proposed site is located on a developed site (existing abattoir) which means that the area is already disturbed and transformed with no natural vegetation present. The area to the west, adjacent to the abattoir, is used as the burial site for all condemned material (carcasses) at the abattoir. An old cemetery is located approximately 100m east of the proposed site. The marks of trenches at the burial site can be seen on the Google Earth aerial imagery above (figure 2).

The site is zoned for Business and the surrounding area of the site is already disturbed as a result of commercial and/or agricultural practices.

Civil and Electrical Services

Electricity is currently available on Erf 3562, Calvinia; and there is an existing abattoir on site. The water used for the krale (sheep folds) is sourced from an existing borehole, and water used for the slaughter floor and final carcase wash is obtained from the municipality. Sewage and refuse will be collected by the local municipality services. The applicant has an agreement with Hantam Municipality that allows the abattoir to discharge their effluent / wastewater into the municipal Wastewater Treatment Plant in Calvinia.

Access

The R355 passes the involved property, to the north, and will provide a high rate of accessibility to the proposed development. Access to the site will be gained by using Du Plessis Road, which passes the sport field and cemetery, and later becomes a dirt/gravel road toward the site.

Figure 3: Google Earth aerial image of the proposed site and surrounding land uses. Burial Site (red polygon) and abattoir (yellow polygon).

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

Listed activity as described in GN 327, 325 and 324	Description of project activity
GN R. 327 – Item 38: The expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased by more than— (i) 50 poultry; **(ii) 6 units of reptiles, red meat and game**; or (iii) 20 000 kg wet weight per annum of fish, crustaceans or amphibians.	The Ramskop abattoir is currently registered to slaughter 600 sheep/ goats per day **(100 Units)**. It is proposed that the slaughter capacity be increased from 600 to 1000 sheep/goats per day **(167 Units)**. According to the Red Meat Regulations (2004) "unit" in relation to a quantity standard for determining throughput for red meat, means - (i) one cow, ox or bull or two calves; (ii) one horse; **(iii) six sheep or goats**; or (iv) four small pigs (porkers) or two bacon pigs or one sausage pig". Ramskop abattoir currently slaughters **600** sheep/goats and proposes to increase the throughput to **1000** sheep/goats per day.

- **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 because the proposed site is the property of the applicant; and the existing burial site is located adjacent to an existing abattoir; and area with no indigenous or natural vegetation and is totally transformed.

Figure 4: A site layout of the proposed site. Erf 3562, showing the abattoir (green placemark) and the associated burial site (yellow placemark).

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		

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 of this form.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The proposed expansion of Calvinia Abattoir Ramskop, Erf 3562, Calvinia, Northern Cape. Ramskop Abattoir Calvinia, is currently registered to slaughter 600 sheep/ goats per day. It is proposed that the slaughter capacity be increased from 600 (100 Units) to 1000 sheep/goats per day (167 Units). All waste products, as well as deceased sheep or carcasses (condemned material), gets buried in trenches at a designated area adjacent to the abattoir. These disposal trenches of 1.5m deep and all condemned carcasses / material gets disposed in the 1.5m deep trenches at the site. The condemned carcasses / material gets neutralized with lime and covered with soil. The trenches get closed immediately after the lime was added. All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. Blood gets separated when head is removed, then the blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia Wastewater Treatment Plant ("WWTP"), and any other remaining solid waste than also gets buried in the trenches mentioned above. Ramskop abattoir installed a flowmeter on their pipeline at the inlet of the municipality's WWTP. (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers. Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTP's inlet) for analysis. The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, putrid odour and vermin nuisance conditions. The burial site	**31°28'16.88"S**	**19°45'41.81"E**

(trenches) is clearly marked and locked for safety and security reasons. Two groundwater monitoring boreholes were drilled on both sides of the burial site (trenches), each approximately 40m deep. The one borehole is located at the south-western corner of the burial site and has the following co-ordinates: 31°28'19.08"S ; 19°45'36.50"E and other borehole is located to the west of the burial site with the following co-ordinates: 31°28'15.68"S ; 19°45'40.54"E. There are no water present in both the groundwater monitoring boreholes. Both boreholes had no water at the time of drilling. Groundwater monitoring on the two boreholes will be done twice a year, during the winter months and during the summer months. The site co-ordinates are **31°28'16.88"S 19°45'41.81"E**. Please refer to figures 1 – 3 and **Appendix A1** for the locality of the proposed site.		
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
No other alternatives were assessed because the physical footprint of the existing abattoir will not be increased. See figure 4 for the site layout.		
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)

No other alternatives were considered.

Alternative 1 (preferred alternative)		
Alternative 2		
Alternative 3		

e) No-go alternative

The no-go option would be the option of not expanding the existing abattoir. This would mean that the abattoir would not be able to expand its slaughter capacity from 600 to 1000 sheep/goats per day. According to the Hantam Municipality IDP 2015-2016, the Hantam area consists largely of non-arable, low potential grazing land and is therefore ideally suited to sheep farming. Other than the

flowers in spring and the pristine Karoo desert environment, there has been minor growth in most of the towns. Calvinia forms the heart of one of South Africa's largest wool-producing districts In addition; the municipality's IDP takes cognisance of fact that the agricultural sector plays an important factor in the area's local economy, especially sheep farming for meat and wool production.

The activity is expected to contribute toward the local community's food-security (meat products) and choosing the no-go option will not allow any additional jobs to be created. The proposed activity is not expected to cause significant negative environmental impacts if the Environmental Management Programme ("EMPr") is implemented; therefore, there are no environmental benefits from not implementing the activity.

Ramskop Abattoir is providing much needed job opportunities to the local residents of Calvinia, and with the no-go option much needed employment opportunities would be lost.

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

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

- **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)	Approximately 24 000m^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:

The R355 passes the involved property, to the north, and will provide a high rate of accessibility to the proposed development/site. Access to the site will be gained by using Du Plessis Road, which passes the sport field and cemetery, and later becomes a dirt/gravel road toward the site. Traffic is not expected to be significantly increased due to the activity. Please see **figure 3** above.

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):

• **Is the activity permitted in terms of the property's existing land use rights?**	YES	~~NO~~	Please explain
The property is Business zoned; and are utilised as an existing abattoir; therefore, a rezoning or consent use application will not be required.			
• **Will the activity be in line with the following?**			
(a) Provincial Spatial Development Framework (PSDF)	YES	~~NO~~	Please explain
The proposed activity is not considered to cause a negative impact on the Provincial Spatial Development Framework ("PSDF") of the Northern Cape Province. The proposed activity does not require a consent use or re-zoning application to be submitted to allow for the activity. It must be noted that this application is for the expansion of the slaughter throughput capacity at an existing abattoir. Therefore, this EIA application to inform the decision. The PSDF of the province is promoting the sustainable utilisation of natural resources and to improve the economy of the 5 district municipalities within the province. The proposed activity is aligned to the province's PSDF.			

(b) Urban edge / Edge of Built environment for the area	YES	~~NO~~	Please explain
The proposed site is located within the urban edge and is Business zoned.			
(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 proposed development is not considered to have negative impact on Hantam Municipality's IDP. According to the Hantam Municipality IDP 2015-2016, the Hantam area consists largely of non-arable, low potential grazing land and is therefore ideally suited to sheep farming. Other than the flowers in spring and the pristine Karoo desert environment, there has been minor growth in most of the towns. Calvinia forms the heart of one of South Africa's largest wool-producing districts. In addition; the municipality's IDP takes cognisance of fact that the agricultural sector plays an important factor in the area's local economy, especially sheep farming for meat and wool production.			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
Unknown			
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	~~NO~~	Please explain
The Namakwa Environmental Management Framework (EMF) include the Hantam Municipal area. The approval will not compromise the integrity of the existing environmental management priorities for the area, because the site is already completely transformed from its original state. Solid waste and wastewater management mitigation measures were incorporated into the operational Environmental Management Programme (EMPr).			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
N/A			
• **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 proposed expansion of the existing abattoir will have no impact on the Municipality's IDP or SDF. The property is Business zoned and the site is completely transformed from its natural state due to past development activities on the property.			

• **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 Ramskop abattoir is currently registered to slaughter 600 sheep/ goats per day. It is proposed that the slaughter capacity be increased from 600 (100 Units) to 1000 sheep/goats per day (167 Units). According to the Hantam Municipality IDP 2015-2016, the Hantam area consists largely of non-arable, low potential grazing land and is therefore ideally suited to sheep farming. Other than the flowers in spring and the pristine Karoo desert environment, there has been minor growth in most of the towns. Calvinia forms the heart of one of South Africa's largest wool-producing districts. In addition, the municipality's IDP takes cognisance of fact that the agricultural sector plays an important factor in the area's local economy, especially sheep farming for meat and wool production. Calvinia is known as the meat capital of the Northern Cape Province, and the Calvinia Meat Festival takes place annually, usually during August or September month. The activity is expected to contribute toward the local community's food-security (meat products) and create much needed employment during the operational phase. The proposed activity is not expected to cause significant negative environmental impacts if the Environmental Management Programme ("EMPr") is implemented; therefore, there are no environmental benefits from not implementing the activity.			
• **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
Electricity is currently available on Erf 3562, Calvinia; and there is an existing abattoir on site. The water used for the krale (animal holding area / sheepfolds) is sourced from an existing borehole, and water used for the slaughter floor and final carcase wash is obtained from the municipality. Sewage and refuse will be collected by the local municipality services. In addition, during the operational phase of the development, effluent/ waste water is and will be conveyed to the municipal Waste Water Treatment Plan (WWTP) in Calvinia.			
• **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
The proposed expansion of Calvinia Abattoir is unlikely to have a negative impact on the municipality's infrastructure planning. The property is Business zoned and the site is completely transformed from its natural state due to past development activities on the property. The physical			

footprint of the existing abattoir will not be increased, but just the product throughput capacity to be expanded.			
• **Is this project part of a national programme to address an issue of national concern or importance?**	~~YES~~	NO	~~Please explain~~
No. The Ramskop abattoir is currently registered to slaughter 600 sheep/ goats per day. It is proposed that the slaughter capacity be increased from 600 (100 Units) to 1000 sheep/goats per day (167 Units). The property is Business zoned and the site is completely transformed from its natural state due to past development activities on the property.			
• **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 proposed activity will take place on an area that is completely transformed from its natural state due to past development activities on the property. There is an existing burial site where condemned material gets disposed of and there are no watercourses within 32m of the proposed site. Oorlogskloof River is approximately 120m south of the proposed site. The nearest residential dwelling is located approximately 610m south-east of the proposed site.			
• **Is the development the best practicable environmental option for this land/site?**	YES	NO	Please explain
The best environmental option would be the no-go alternative. However, the social benefits of the proposed project would not be realised. Although the expansion of Ramskop Abattoir Calvinia may cause some disturbance; however, with the implementation of the Environmental Management Programme ("EMPr") the proposed activity is expected to have a low negative impact. The benefits of the proposed activity are expected to outweigh any potential negative environmental impacts.			
• **Will the benefits of the proposed land use/development outweigh the negative impacts of it?**	YES	~~NO~~	Please explain
No significant negative environmental impacts are expected by the proposed development; therefore, the benefits of the development will outweigh the negative impacts of it. The implementation of the EMPr will manage any negative impacts and improve the positive impacts during its operational phase.			
• **Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?**	~~YES~~	NO	Please explain
The proposed activity is not expected to set a precedent. However, the Northern Cape Province is known for its meat products. Calvinia is well known for its annual meat festival.			
• **Will any person's rights be negatively affected by the proposed activity/ies?**	YES	NO	Please explain
The rights of residents, local farmers, the community etc. are not expected to be negatively impacted as the proposed activity is expected to have positive impact on the community of Calvinia and surrounding areas.			

• **Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?**	~~YES~~	NO	Please explain
The activity is not expected to compromise the urban edge.			
• **Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?**	YES	NO	Please explain
The project may contribute to SIP 11 – Agri-logistics and rural infrastructure (Improve investment in agricultural and rural infrastructure that supports expansion of production and employment, small-scale farming and rural development, including facilities for storage (silos, fresh-produce facilities, packing houses); transport links to main networks (rural roads, branch train-line, ports), fencing of farms, irrigation schemes to poor areas, improved R&D on rural issues (including expansion of agricultural college colleges), processing facilities (abattoirs, dairy infrastructure), aquaculture incubation schemes and rural tourism infrastructure.).			
• **What will the benefits be to society in general and to the local communities?**	Please explain		
The Ramskop abattoir is currently registered to slaughter 600 sheep/ goats per day. It is proposed that the slaughter capacity be increased from 600 (100 Units) to 1000 sheep/goats per day (167 Units). According to the Hantam Municipality IDP 2015-2016, the Hantam area consists largely of non-arable, low potential grazing land and is therefore ideally suited to sheep farming. Other than the flowers in spring and the pristine Karoo desert environment, there has been minor growth in most of the towns. Calvinia forms the heart of one of South Africa's largest wool-producing districts In addition; the municipality's IDP takes cognisance of fact that the agricultural sector plays an important factor in the area's local economy, especially sheep farming for meat and wool production. Calvinia is known as the meat capital of the Northern Cape Province, and the Calvinia Meat Festival takes place annually, usually during August or September month. The activity is expected to contribute toward the local community's food-security (meat products) and create much needed employment during the operational phase. The proposed activity is not expected to cause significant negative environmental impacts if the Environmental Management Programme ("EMPr") is implemented; therefore, there are no environmental benefits from not implementing the activity.			
• **Any other need and desirability considerations related to the proposed activity?**	Please explain		
No.			
• **How does the project fit into the National Development Plan for 2030?**	Please explain		
The proposed expansion of Ramskop Abattoir Calvinia does not fall into the National Development Plan for 2030, but it does create new jobs and strengthen the food security of Calvinia and surrounding areas.			
• **Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.**			
The general objectives of Integrated Environmental Management have been taken into account through the following: - 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 – please refer to Section D below.

- The effects of the activity on the environment have been considered before actions taken in connection with them
- Adequate and appropriate opportunity for public participation was ensured through the public participation process – please refer to Section C and 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 – an EMPr has been included (Appendix G) with the proposed activity and must adhere to the requirements of all applicable state Authorities.

- **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 significant beneficial impact on people, as it will provide much needed economic 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.
- Where waste cannot be avoided, it is minimised and remedied through the implementation and adherence of EMPr.
- The use of non-renewable natural resources is responsible and equitable – *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 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 EMPr 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
National Environmental Management Act, 1998 (Act 107 of 1998) ("NEMA")	Environmental Authorisation	Department of Environment and Nature Conservation ("DENC").	This EIA application for environmental authorisation.

National Water Act (Act 36 of 1998).	Commenting Authority	Department of Water and Sanitation ("DWS").	Not yet
Meat Safety Act (Act 40 of 2000) and the Red Meat Regulations, 2004	Permit	Department of Agriculture, Land Reform and Rural Development – Northern	Existing Abattoir.
Occupational Health and Safety Act, 1985 (Act 85 of 1993)	Safety	Hantam Municipality	Not yet
Guidelines for the handling, treatment and disposal of abattoir waste, 2001	Abattoir waste	Department of Agriculture, Forestry & Fisheries	

- **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?		m^3

The proposed expansion of Ramskop Abattoir will not produce any construction waste, as this EIA application is for the expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased. Ramskop Abattoir is currently registered to slaughter 600 sheep/ goats per day (100 Units). It is proposed that the slaughter capacity be increased from 600 to 1000 sheep/goats per day (167 Units). Quantities of solid waste will be produced during the operational phase.

Sources of solid wastes generated at the abattoir include:
• animal holding areas;
• slaughterhouse and processing areas;
• unwanted hide or skins, droppings /manure, and unwanted carcasses and carcass parts.

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

N/A. Ramskop Abattoir is an existing facility and is fully operational. Please see explanation above.

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

N/A. Please see explanation above.

Will the activity produce solid waste during its operational phase?	YES	~~NO~~
If YES, what estimated quantity will be produced per month?	40 000kg	

Ramskop Abattoir is currently registered to slaughter 600 sheep (100 Units) per day and produces approximately 24 000kg of solid waste per month on full capacity. However, should the application be approved, and the slaughter capacity increased to 1000 sheep (167 Units), than an amount of approximately 40 000kg of solid waste will be produced per month.

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

Calvinia Ramskop Abattoir is an existing facility and is operational. Solid waste includes the animal manure (faecal material) and condemned material. The condemned material (carcasses) gets buried in lined trenches, at a designated site to the west of the abattoir. The burial site is fenced off to prevent scavenging activities and to ensure the safety of the people around the site. Please see figure 4 and **Appendix B** for the site photos.

Sources of solid wastes generated at the abattoir include:
• animal holding areas;
• slaughterhouse and processing areas;
• unwanted hide or skins, droppings /manure, and unwanted carcasses and carcass parts. Typical abattoir effluent contains blood, pieces of meat, fat and gut. Constant urine and dung in suspension. Each of these contributes to a high organic load when not adequately removed.

Manure is generated in the animal holding areas and krale. Animal holding pens will be cleaned out daily. Animal manure gets buried in the trenches together with the carcasses (waste products). The burial and immediate covering of trenches of a depth of more than 60 cm and not less than 100 m from the abattoir. The solid domestic waste gets removed by the local municipality. Non-process wastes (domestic waste) originate from kitchens and offices, dispersed or uneaten feed and from general maintenance. The non-process waste gets removed by the Hantam Municipality.

The applicant confirmed that one sheep produces 2kg of solid waste per day. Therefore 600 sheep produce 24 000kg (24 Ton) of solid waste per month when the abattoir is operating 5 days a week, and four weeks a month. Should the abattoir's slaughter capacity be increased to 1000 sheep per day, then an amount of 40 000kg (40 Ton) of solid waste will be produced per day.

All waste products, as well as deceased sheep or carcasses (condemned material), gets buried in trenches at a designated area adjacent to the abattoir. These disposal trenches are 1.5m deep and all condemned carcasses / material gets disposed in the 1.5m deep trenches at the site. The condemned carcasses / material gets neutralized with lime and covered with soil. The trenches get closed immediately after the lime was added.

All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. Blood gets separated when head is removed, then the blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia Wastewater Treatment Plant ("WWTP"), and any other remaining solid waste than also gets buried in the trenches mentioned above.

Ramskop abattoir installed a flowmeter on their pipeline at the inlet of the municipality's WWTP. (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers. Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTP's inlet) for analysis.

The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, and to prevent putrid odour and vermin nuisance conditions. The burial site (trenches) is clearly marked and locked for safety and security reasons.

Two groundwater monitoring boreholes were drilled on both sides of the burial site (trenches), each approximately 40m deep. The one borehole is located at the south-western corner of the burial site and has the following co-ordinates: **31°28'19.08"S ; 19°45'36.50"E** and other borehole is located to the west of the burial site with the following co-ordinates: 31°28'15.68"S ; 19°45'40.54"E. There are no water present in both the groundwater monitoring boreholes. Both boreholes had no water at the time of drilling. Groundwater monitoring on the two boreholes will be done twice a year, during the winter months and during the summer months.

The condemned material at the abattoir is not disposed through incineration. Incineration appears to be more suitable for dealing with whole carcasses than for waste offal, which has high water content and a low calorific value. The costs of incineration are also relatively high. Incineration of materials throughout South Africa is generally being phased out and is not supported by most of the government departments.

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

All solid domestic waste, excluding condemned material (unwanted hide or skins, and unwanted carcasses and carcass parts), will be collected by the municipality and will be disposed of at a registered land fill site. Condemned material will be buried in trenches at a designated burial site, approximately 50m west of the abattoir. Please see figure 4 and Appendix B.

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

Please see explanation above. Non-process solid waste will be disposed of at a registered municipal landfill site, and the condemned material (carcasses) will be buried in trenches at a designated burial site approximately 50m west of the abattoir. Please see figure 4 and Appendix B.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?	YES	~~NO~~

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

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	NO

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

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	~~NO~~
If YES, what estimated quantity will be produced per month?		$50m^3$
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	NO

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

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	~~NO~~

If YES, provide the particulars of the facility:

Facility name:	Calvinia Waste Water Treatment Plant – Hantam Municipality		
Contact person:	Municipal Manager		
Postal address:	Private Bag X14, Calvinia		
Postal code:	8190		
Telephone:	027 341 8500	**Cell:**	

E-mail:	Admin2@hantam.gov.za	**Fax:**	027 341 8501

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

Ramskop Abattoir has signed an agreement with Hantam Municipality in 2008 that allows the abattoir to discharge the wastewater / effluent water into the municipal Waste Water Treatment Plant ("WWTP"), located in Calvinia. This agreement signed in 2008 had certain condition to which the abattoir have to adhered to, especially with regards to the wastewater discharged at the municipal WWTP.

All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. Blood gets separated when head is removed, then the blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia WWTP, and any other remaining solid waste than also gets buried in the trenches mentioned above.

Ramskop abattoir installed a flowmeter on their pipeline at the inlet of the municipality's WWTP. (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers. Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTP's inlet) for analysis.

The abattoir installed a flowmeter at the inlet of the municipality's waste water treatment works (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers.

The volumes of wastewater effluent discharged by Ramskop Abattoir at their outlet pipe at the Calvinia Waste Water Treatment Works must be recorded by Ramskop Abattoir's employees and must be provided to Hantam Municipality's employees on a monthly basis.

The abattoir's wastewater effluent entering the Hantam Municipality's WWTP must have a Chemical Oxygen Demand ("COD") of at least 2000mg/l and this COD count should be consistent. Please refer to **Appendix J3** for the wastewater quality monitoring samples.

Total Suspended Solids ("TSS") means particles disseminated in and carried by water, and can include a variety of materials, such as silt, decaying plant and animal matter, industrial waste, fats, small pieces of meat, and sewage. Ramskop Abattoir's TSS concentration must be at least 150mg/l and should be constant. Please refer to **Appendix J3** for the wastewater quality monitoring samples.

Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTW's inlet) for analysis.

The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, putrid odour and vermin nuisance conditions. The burial site (trenches) is clearly marked and locked for safety and security reasons.

Two groundwater monitoring boreholes were drilled on both sides of the burial site (trenches), each approximately 40m deep. The one borehole is located at the south-western corner of the burial site and has the following co-ordinates: **31°28'19.08"S ; 19°45'36.50"E** and other borehole is located to the west of the burial site with the following co-ordinates: **31°28'15.68"S ; 19°45'40.54"E**. There are no water present in both the groundwater monitoring boreholes. Both boreholes had no water at the time of drilling. Groundwater monitoring on the two boreholes will be done twice a year, during the winter months and during the summer months.

The proposed development will have no impact on groundwater quality or groundwater users in the surrounding area. Please refer to **Appendix D1** for the Geohydrological Impact Assessment ("GIA") and **Appendix J** for the recommendation on the groundwater monitoring boreholes as compiled by GEOSS - Geohydrological and Spatial Solutions International (Pty) Ltd.

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
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:

The proposed development could have a low negative impact in terms of nuisance / offensive ardours if the burial of condemned material in trenches are not done in accordance with the Environmental Management Programme ("EMPr"). Condemned material gets disposed of in the burial trenches, which is 1.5m deep, lime added and immediately covered with soil in order to prevent unpleasant smells or odours from spreading to the surrounding area. Please refer to Appendix G for the EMPr.

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

A waste permit in terms of NEM:WA is not required. Calvinia Ramskop Abattoir is an existing facility.

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

Environment Conservation Act 73 of 1989 ("ECA") - Noise Control Regulations 1998.

Describe the noise in terms of type and level:

The existing facility will be producing noise during the operational phase. Noise will be generated by the animals (krale). An expected maximum noise level of 45 dBA is expected. This level is also the standard maximum for daylight rural conditions. The nearest residential dwelling is approximately 610m south-east of the proposed site. The proposed development is not considered to cause significant noise levels when the EMPr is implemented.

<u>Dust</u>

The abattoir is currently registered to slaughter 600 sheep on full capacity and is now expanding the slaughter capacity to 1000 sheep a day. This means that the number of vehicles used to transport the animals to the abattoir could result in a slight increase in road traffic, which could lead to an increase in dust generation within the immediate vicinity of the site. However, this impact is considered to be of low-negative and is considered to be of low significance. This could be attributed to the fact that the nearest residential dwelling is located approximately 610m south-east of the proposed site. Dust repression measures will be implemented together with the operational EMPr.

• 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: Calvinia Ramskop Abattoir uses both municipal and borehole water (ground water) for the activity. Water used for the krale is from an existing borehole and the water that is used for the slaughter floor and final carcase wash is from the Hantam Municipality. An amount of approximately 3000 litres of water gets extracted from the borehole daily. Groundwater are being used to clean off carcasses, the groundwater is chlorinated on site to disinfect. Groundwater was also found to be used to clean out the holding pens / animal holding areas (krale). The holding pens and washing zones are within cement bunding walls. The effluent water is conveyed through a separator to retain solids, then channelled into a storage tank where it is transferred to the municipal WWTP. Animal remains that are unusable (condemned carcasses) are disposed in 1.5m deep trenches on site. The remains are buried in trenches that's 1.5m deep, lime is applied to help with the decomposition process. Please see Appendix D1 for the Geohydrological Impact Assessment ("GIA").	90m³ / 90 000 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:

Calvinia Ramskop Abattoir is an existing facility. Water and energy saving devices will be used within all components of this development where possible.

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

Calvinia Ramskop Abattoir is an existing facility. Water and energy saving devices will be used within all components of this development where possible.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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

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

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

- Has a specialist been consulted to assist with the completion of this section? YES ~~NO~~

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

Property description/physical address:	**Province**	Northern Cape
	District Municipality	Namakwa District Municipality
	Local Municipality	Hantam Municipality
	Ward Number(s)	Ward 2
	Farm name and number	Erf 3562
	Portion number	Erf 3562
	SG Code	C01500020000356200000
	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:	Business Zoned
	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~~		~~2.8 Dune~~	
~~2.3 Side slope of hill/mountain~~		2.6 Plain	X	~~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. Please refer to **Appendix D1** for the **Geohydrological Impact Assessment**.

- **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~~[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.

There are no watercourses on the site or within 32m of the proposed site. The Oorlogskloof River is approximately 120m south of the proposed site. Please see figure 5 below.

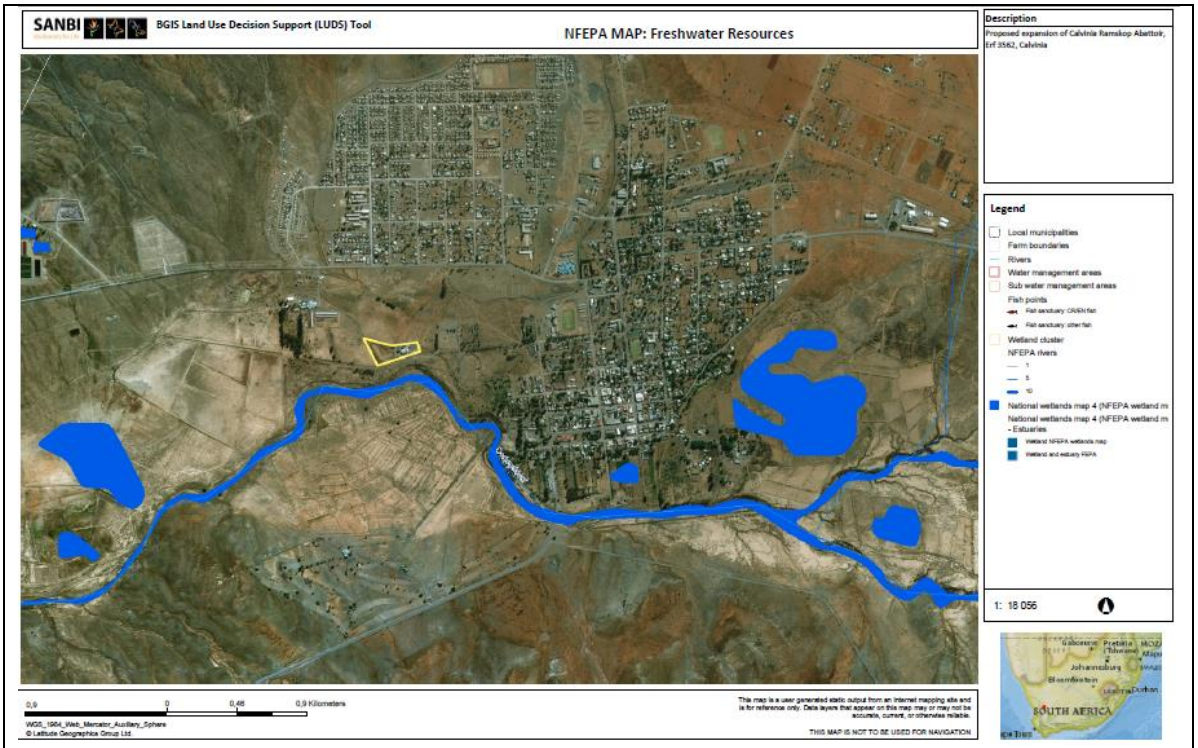

Figure 5: SANBI BGIS NFEPA MAP: The proposed site (yellow polygon) is not located within 32m of any watercourse. Oorlogskloof River is approximately 120m south of the proposed site.

- **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)~~

The proposed site is located on a developed site (existing abattoir) which means that the area is already disturbed and transformed with no natural vegetation present. The area to the west, adjacent to the abattoir, is used as the burial site for all condemned material (carcasses) at the abattoir. An old cemetery

is located approximately 100m east of the proposed site. The marks of trenches at the burial site can be seen on the Google Earth aerial images (figures 2, 6 & 8). Oorlogskloof River is located approximately 120m south of the proposed site. The R355 Road is approximately 500m north of the site, and Calvinia Abattoir is located approximately 300m north-west of the site. The site is zoned for Business and the surrounding area of the site is already disturbed as a result of commercial and/or agricultural practices.

Figure 6: Google Earth aerial image of the proposed site and surrounding land uses. Burial Site (red polygon) and abattoir (yellow polygon).

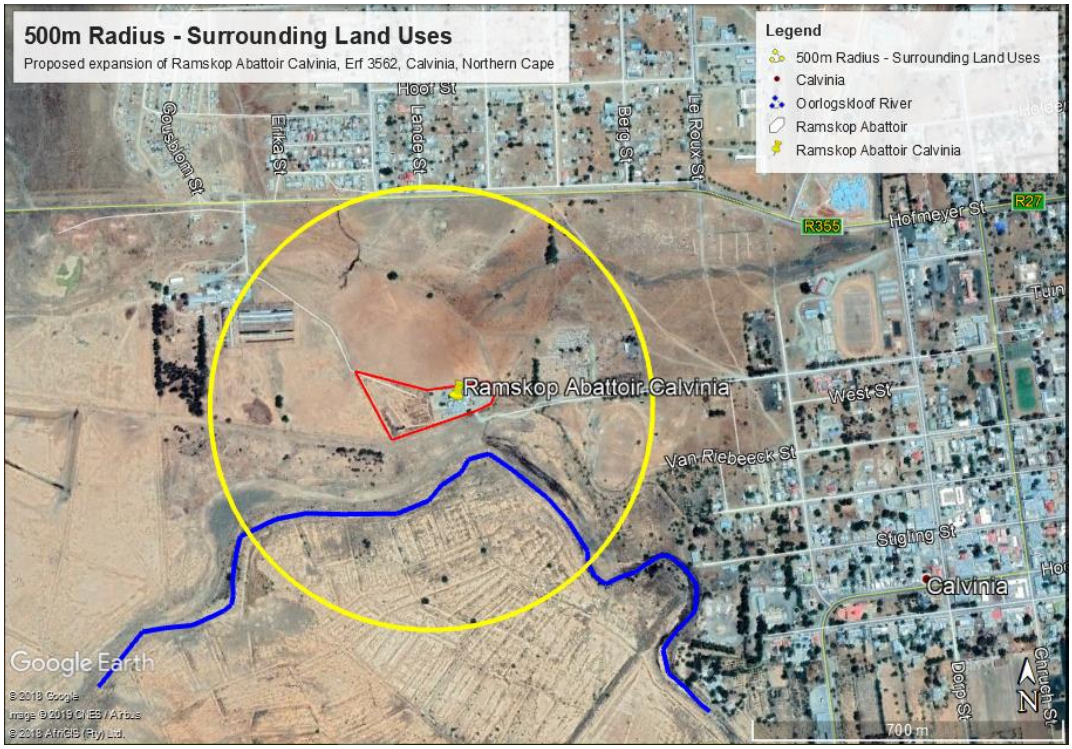

Figure 7: Google Earth aerial image of the proposed site (red polygon) and surrounding land uses. Oorlogskloof River is located approximately 120m south of the proposed site. The R355 Road is

approximately 500m north of the site, and Calvinia Abattoir is located approximately 300m north-west of the site.

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. No impacts are expected.

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. No impacts are expected.

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. No impacts are expected.

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. Please refer to **Appendix D3** for the Biodiversity Sensitivity Map.

The western part of the site, where the burial site is situated, is located within a Critical Biodiversity Area (CBA). The property on which the site is located falls within a National threatened ecosystem where Bokkeveld Sandstone Fynbos occur, which is an ecosystem categorised as ***Vulnerable*** in terms of Section 52 of the National Environmental Management: Biodiversity Act (NEMBA), 2014. But because of the property being completely transformed due to past development activities, the impacts will be of low significance because there is no natural vegetation present on the site.

- **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	
However, the South African Heritage Resource Agency ("SAHRA") were given an opportunity to provide comment on the draft BAR that was made available for comment during 2017, and SAHRA provided comment on 14 November 2017. SAHRA did not support the application at the time as no Heritage Impact Assessment was undertaken. However, a Heritage Screener was compiled by CTS Heritage, dated April 2018, and made the following conclusion:		

Three old National Monuments, now Provincial Heritage Sites, are located approximately 400m away from the Calvinia Abattoir, however, none of these structures will be directly or indirectly impacted by the proposed capacity increase. Two applications on SAHRIS are located within close proximity to the abattoir, however no heritage assessments have been completed for these cases as yet [SAHRIS Case No. 10572 and 12271].

The ACO conducted an HIA for a borrow pit for the proposed upgrade of the R27 [SAHRIS NID 26746], however no heritage resources were identified in this assessment. The geology underlying the abattoir is noted as having high palaeontological sensitivity, however as there is no infrastructure development proposed as part of this application, no palaeontological heritage resources will be impacted. Furthermore, no archaeological or built environment heritage resources will be directly or indirectly impacted.

The existing abattoir structure is located approximately 150m from the existing municipal cemetery. Even though this case does not trigger Section 36 of the NHRA, it is worth noting that municipal cemeteries are not managed under the NHRA in terms of Section 36, nor are they included in the definitions of heritage resources in terms of section 3 of the NHRA. Regardless of the interpretation of whether the municipal cemetery is a heritage resource or not, we cannot find any reason why this application will create a heritage impact on the cemetery which is buffered from the abattoir by a row of tall trees. The activities that currently occur on site will continue to occur on site and no additional infrastructure is proposed. There will therefore be no direct or indirect impact on the municipal cemetery.

No heritage resources will be impacted by the proposed development and no further heritage studies are required.

Please refer to **Appendix D2** for the **Heritage Screener** compiled by CTS Heritage.

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:

A Heritage Screener was compiled by CTS Heritage, dated April 2018, and made the following conclusion:

Three old National Monuments, now Provincial Heritage Sites, are located approximately 400m away from the Calvinia Abattoir, however, none of these structures will be directly or indirectly impacted by the proposed capacity increase. Two applications on SAHRIS are located within close proximity to the abattoir, however no heritage assessments have been completed for these cases as yet [SAHRIS Case No. 10572 and 12271].

The ACO conducted an HIA for a borrow pit for the proposed upgrade of the R27 [SAHRIS NID 26746], however no heritage resources were identified in this assessment. The geology underlying the abattoir is noted as having high palaeontological sensitivity, however as there is no infrastructure development proposed as part of this application, no palaeontological heritage resources will be impacted. Furthermore, no archaeological or built environment heritage resources will be directly or indirectly impacted.

The existing abattoir structure is located approximately 150m from the existing municipal cemetery. Even though this case does not trigger Section 36 of the NHRA, it is worth noting that municipal cemeteries are not managed under the NHRA in terms of Section 36, nor are they included in the definitions of heritage resources in terms of section 3 of the NHRA. Regardless of the interpretation of whether the municipal cemetery is a heritage resource or not, we cannot find any reason why this application will create a heritage impact on the cemetery which is buffered from the abattoir by a row of tall trees. The activities that currently occur on site will continue to occur on site and no additional infrastructure is proposed. There will therefore be no direct or indirect impact on the municipal cemetery.

No heritage resources will be impacted by the proposed development and no further heritage studies are required.

Please refer to **Appendix D2** for the **Heritage Screener** compiled by CTS Heritage.

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.		

A copy of the Draft Basic Assessment Report ("BAR") will be provided to SAHRA to provide comment.

- **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:

The Hantam Local Municipality is a Category B municipality situated within the Namakwa District in the Northern Cape Province. It is the largest municipality of six in the district, making up a third of its geographical area.

Of the 7 085 economically active (employed and unemployed but looking for work) people in the municipality, 11,8% are unemployed. Unemployment and poverty affects a large number of people within the municipal area. The unemployment rate for the youth is 15, 3% according to the 2011 census.

Economic profile of local municipality:

According to the Hantam Municipality IDP 2015-2016, agriculture forms the backbone of the economy in the municipal area and this sector has the most employment opportunities. Despite the harsh climate and poor carrying capacity of the veld, it still offers opportunities for growth and employment creation. 11% of the GDP contribution in the Hantam Municipality is attributed to Agriculture. Please refer to figure 8 for more detail.

	Northern Cape	Namakwa DM	Hantam LM
Agriculture, forestry & fishing	6.2%	4.5%	11.0%
Mining & quarrying	23.4%	34.9%	1.2%
Manufacturing	3.6%	2.2%	4.5%
Electricity, gas & water	2.1%	1.1%	3.4%
Construction	1.7%	2.4%	3.0%
Wholesale & retail trade, catering & accommodation	11.7%	9.5%	9.9%
Transport, storage & communication	10.2%	10.7%	10.8%
Finance, insurance, real estate & business services	15.3%	11.0%	23.1%
Community, social & personal services	10.7%	11.9%	14.7%
General government	15.1%	11.8%	18.4%
Total	100%	100%	100%

Figure 8: Showing the GDP contribution of Hantam.

The sectors that contributed the most to the Hantam Local Municipality, according to the draft Hantam Integrated Development Plan 2015 – 2020, are:

1) Finance, insurance, real estate and business services;
2) General Government;
3) Community, social and personal services;
4) Agriculture, forestry and fishing;
5) Transport, storage and communication.

Level of education:

According to CENSUS 2011, Hantam Municipality has a total population of 21 578. Of those aged 20 years and older, 18,8% completed Grade 12; 19,7% have some primary education; 8,4% completed primary education; 30,6% completed some secondary education; 8,1% have some higher education and only 14,4% had no schooling.

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	±R 500 000.00	
What is the expected yearly income that will be generated by or as a result of the activity?	Unknown	
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?	20	
What is the expected value of the employment opportunities during the development and construction phase?	±R 800 000.00	
What percentage of this will accrue to previously disadvantaged individuals?	Unknown	
How many permanent new employment opportunities will be created during the operational phase of the activity?	20	

What is the expected current value of the employment opportunities during the first 10 years?	Unknown
What percentage of this will accrue to previously disadvantaged individuals?	80%

- In an economy where job losses are more common than job creation, this socio-economic benefits outweighs the services capabilities.

• BIODIVERSITY

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

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

Systematic Biodiversity Planning Category				**If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan**
Critical Biodiversity Area (CBA)	~~Ecological Support Area (ESA)~~	~~Other Natural Area (ONA)~~	~~No Natural Area Remaining (NNR)~~	The western part of the site, where the burial site is situated, is located within a Critical Biodiversity Area ("CBA"). The property falls within a National threatened ecosystem where Bokkeveld Sandstone Fynbos occur, which is an ecosystem categorised as *Vulnerable* in terms of Section 52 of the National Environmental Management: Biodiversity Act (NEMBA), 2014. But because of the property being completely transformed due to past development activities, the impacts will not be of significance because there is no natural vegetation present on the site. Please refer to **Appendix D3** for the Biodiversity Sensitivity Map.

According to the SANBI BGIS website, the western part of the site, where the burial site is situated, is located within a Critical Biodiversity Area ("CBA"). The property falls within a National threatened ecosystem, where Bokkeveld Sandstone Fynbos occur which is an ecosystem categorised as *Vulnerable* in terms of Section 52 of the National Environmental Management: Biodiversity Act (NEMBA), 2014. But because of the property being completely transformed due to past development activities, the impacts

will not be of significance because there is no natural vegetation present on the site. Please refer to figures 9 – 10.

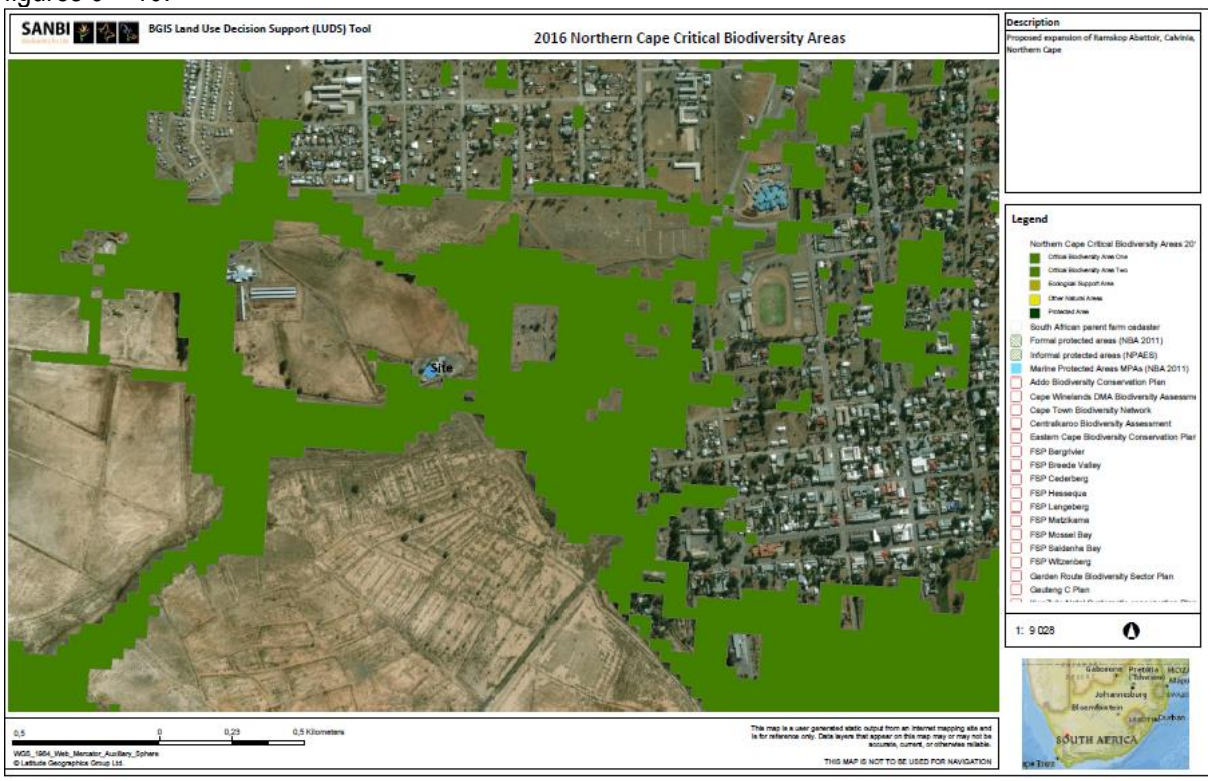

Figure 9: SANBI BGIS CBA Map. The site (blue dot) is located within a CBA.

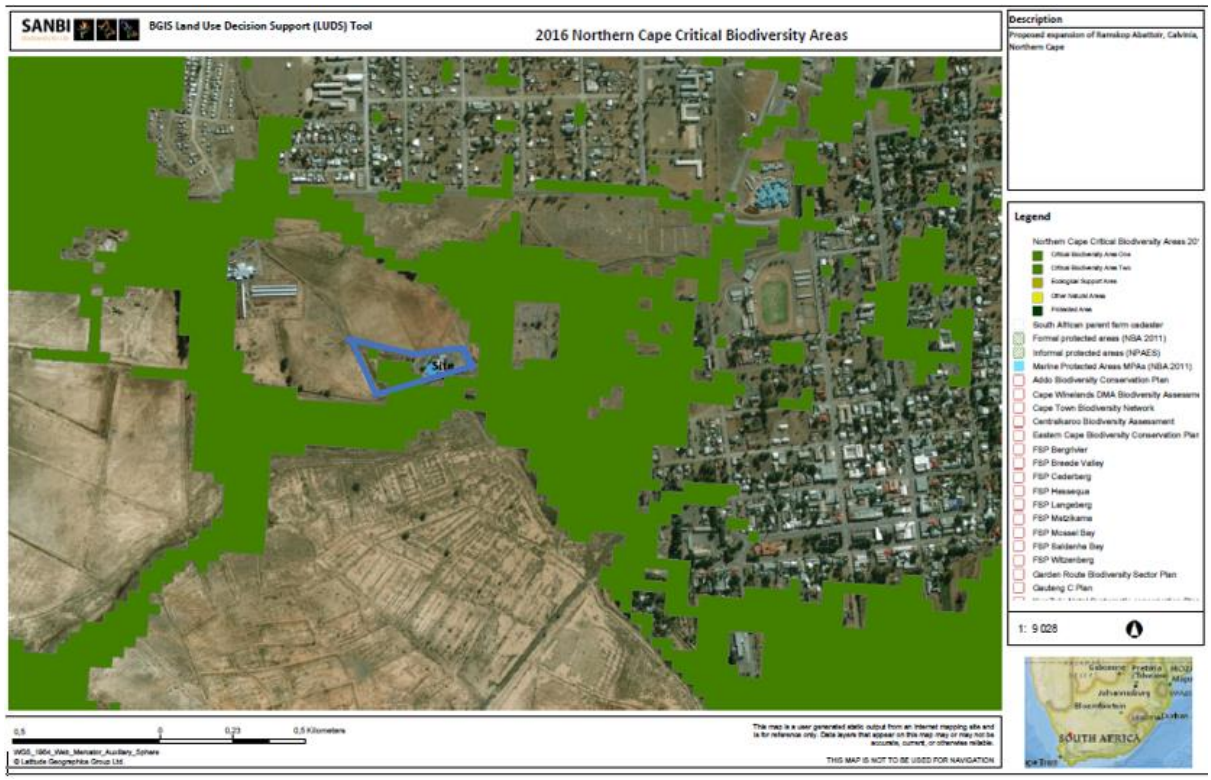

Figure 10: SANBI BGIS CBA Map. The site (blue polygon) is located within a CBA.

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)	%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	100 %	The entire site is completely transformed from its natural state due to past development activities on the property. The proposed site has no natural vegetation. The western part of the site is located within a degraded Critical Biodiversity Area (CBA). Please see figures 9 - 10 above.

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~~ ~~Endangered~~ Vulnerable ~~Least Threatened~~	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
		~~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)

In accordance with the National Vegetation map 2012 beta2 of South Africa, the site would historically be covered by Bokkeveld Sandstone Fynbos and this vegetation's ecosystem threat status is *vulnerable*. However, there are no natural vegetation left on the already transformed land. The site is completely transformed from its natural state due to past development activities on the property. Please see figure 11 below as well as **Appendix B** for the site photos.

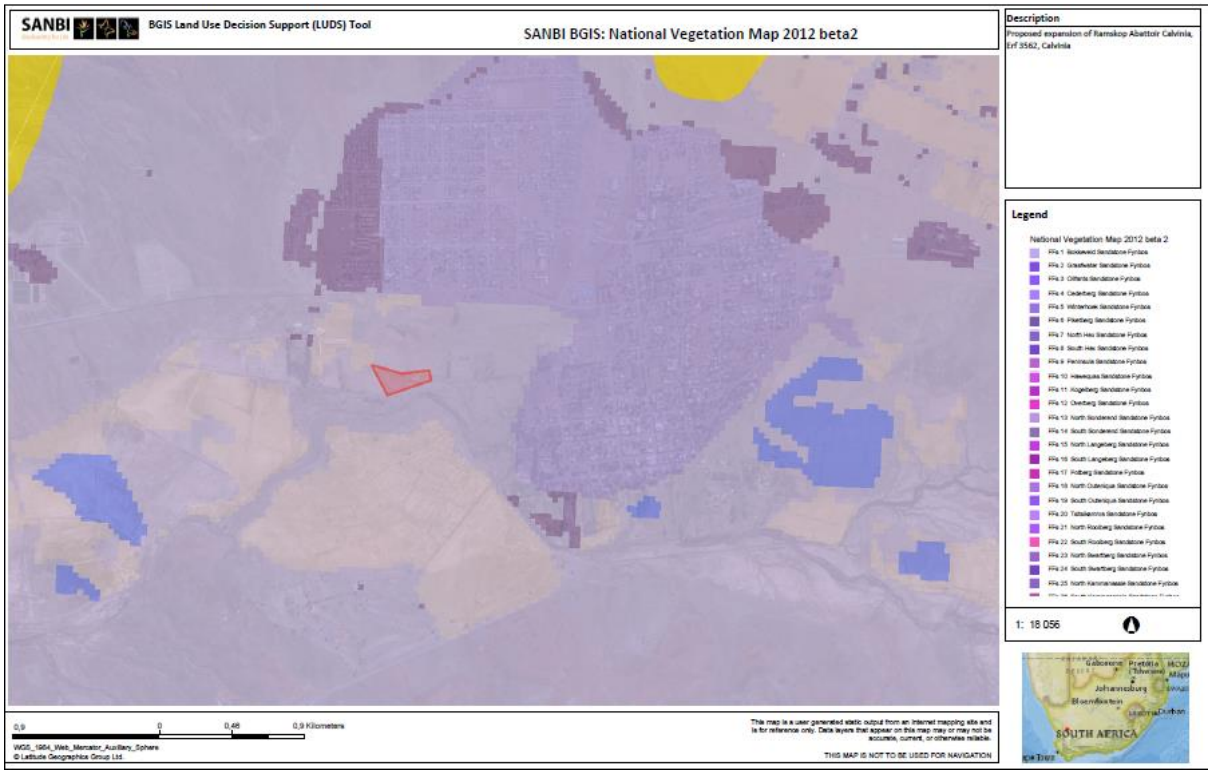

Figure 11: SANBI BGIS map showing the vegetation cover of the area. The site is indicated by the red polygon.

SECTION C: PUBLIC PARTICIPATION

- **ADVERTISEMENT AND NOTICE**

Publication name	Noordwester	
Date published	18 August 2017	
Site notice position	**Latitude**	**Longitude**
	See Appendix E4	
Date placed	15 August 2017	

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)
Dr. Gerhard Neethling	Red Meat Abattoir Association	info@rmaa.co.za

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
Please refer to Appendix E	Please refer to Appendix E of the BAR.
Please see Comment and Response Report on comments received on the Draft Basic Assessment Report ("BAR"), attached as Appendix E9.	Please refer to Appendix E of the BAR.
Authorities Meeting held on 02 August 2018.	Please refer to Appendix E11 for the meeting minutes.

- **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 Agriculture, Forestry & Fisheries	J. Mans	054 338 5909	054 334 0030		P.O. Box 2782, Upington, 8800
Department of Water Affairs-Northern Cape	Steven Shibambu	053 7731239	086 699 2007	shibambus@dws.gov.za	Private Bag X5912, Upington, 8800
Department of Agriculture: Veterinary Health	Brendon Manuel	073 784 1822	027 341 2921		P.O. Box 60, Calvinia, 8190

Department of Health (HOD)	Cathi Munroe	053 830 2148	053 832 4394		Private Bag X5049, Kimberley, 8300
SAHRA	N. Higgitt	021 462 4502	021 462 4509		P.O. Box 4637, Cape Town, 8000
Namakwa District Municipality: Environmental Health	Denver Smith	027 712 8000	027 712 8040		Private Bag X20, Van Riebeeck Street, SPRINGBOK, 8240
Hantam Municipality	J.R. van Wyk	027 341 8500	027 341 8501		Private Bag X14, Calvinia, 8190

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)			
The proposed expansion of the Ramskop Abattoir Calvinia	***Direct impacts:*** **Potential impact on surface Freshwater Resources**	**Negligible, Unlikely**	• Condemned material to be disposed of at an existing fenced off burial area on site, west of the abattoir. • No development to take place within 32m of the any watercourse. Oorlogskloof River is approximately 120m south of the proposed site. • Existing access roads to be used and no new roads to be constructed. • All operational activities must be undertaken in accordance with an approved operational phase Environmental Management Programme ("EMPr"). • The control of waste water, any polluted water and/or stormwater must be properly controlled, as per the EMPr.
	Potential impact on Groundwater Resources. The Ramskop abattoir upgrade is not considered to have an impact on groundwater resources in the area and it will not impact on the groundwater quality of the production borehole on site or neighbouring farms. A high level of confidence is associated with this conclusion. Please see	**Negligible, Unlikely**	• All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. • Blood gets separated when head is removed, then the

	Appendix D1 (Geohydrological Impact Assessment).		blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. • After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia Wastewater Treatment Plant ("WWTP"), and any other remaining solid waste than also gets buried in the 1.5m deep trenches on site. • Ramskop abattoir installed a flowmeter on their pipeline at the inlet of the municipality's WWTP (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers. • Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTP's inlet) for analysis. • The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, putrid odour and vermin nuisance conditions. • The burial site (trenches) is clearly marked and locked for safety and security reasons. • Two groundwater monitoring boreholes were

			drilled on both sides of the burial site (trenches), each approximately 40m deep. The one borehole is located at the south-western corner of the burial site and has the following co-ordinates: **31°28'19.08"S ; 19°45'36.50"E** and other borehole is located to the west of the burial site with the following co-ordinates: **31°28'15.68"S ; 19°45'40.54"E.** • There were no water present in both the groundwater monitoring boreholes. Both boreholes had no water at the time of drilling. Groundwater monitoring on the two boreholes will be done twice a year, during the winter months and during the summer months. • The control of waste water, any polluted water and/or stormwater must be properly controlled, as per the EMPr.
	The loss of cultural or historic aspects (Archaeological Heritage)	**Negligible, Unlikely**	• 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 and operational phase 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.

	Solid Waste	**Low Negative, Definite**	• Waste from the abattoir and lairages (animal holding areas) will be collected and removed daily and disposed in trenches with a minimum depth of more than 1.5m, just west of the abattoir. • All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. • Blood gets separated when head is removed, then the blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. • After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia Wastewater Treatment Plant ("WWTP"), and any other remaining solid waste than also gets buried in the 1.5m deep trenches on site. • The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, putrid odour and vermin nuisance conditions. • The burial site (trenches) is clearly marked and locked for safety and security reasons. • The control of solid waste, wastewater, any polluted

			water and/or stormwater must be properly controlled, as per the EMPr.
	Wastewater / Effluent entering Calvinia Wastewater Treatment Plant	**Low-Medium Negative, Definite**	• All water used at the abattoir; this includes the slaughter floor and pens/krale, gets pumped through a separator where to solids gets separated from the liquid waste produced by the abattoir. • Blood gets separated when head is removed, then the blood flows into a 2500L storage tank. In storage tank blood and water gets mixed to prevent coagulation. • After this the wastewater gets treated with chemicals to stabilize /solidify blood and break down the remaining solids. After this, wastewater than gets pumped through a pipeline to the municipality's oxidation dams / Calvinia Wastewater Treatment Plant ("WWTP"), and any other remaining solid waste than also gets buried in the 1.5m deep trenches on site. • Ramskop abattoir installed a flowmeter on their pipeline at the inlet of the municipality's WWTP (where the abattoir's pipeline terminates), and monthly water quality samples gets taken at the WWTP's inlet and provided to the municipality and Gert Meiring at BVI Consulting Engineers. • Ramskop Abattoir's employees as well as the municipality's employees will take the water quality samples at the same place (WWTP's inlet) for analysis. • The area where the where condemned carcasses / material and solid blood gets buried (in trenches) is properly fenced off and has

			an access control gate for safety and security purposes and to prevent easy access to pickers or scavengers, putrid odour and vermin nuisance conditions. • The burial site (trenches) is clearly marked and locked for safety and security reasons. • Two groundwater monitoring boreholes were drilled on both sides of the burial site (trenches), each approximately 40m deep. The one borehole is located at the south-western corner of the burial site and has the following co-ordinates: **31°28'19.08"S ; 19°45'36.50"E** and other borehole is located to the west of the burial site with the following co-ordinates: **31°28'15.68"S ; 19°45'40.54"E.** • There were no water present in both the groundwater monitoring boreholes. Both boreholes had no water at the time of drilling. Groundwater monitoring on the two boreholes will be done twice a year, during the winter months and during the summer months. • The control of waste water, any polluted water and/or stormwater must be properly controlled, as per the EMPr.
	Noise Noise generated within the abattoir and lairages (animal holding areas).	**Negligible, Unlikely**	• Operating hours restricted to normal working hours (07:30 – 17:30). • An acceptable noise level (45dBA during the day and 35dBA during the night) as specified by the SABS 10103 Code of Practice will be maintained). • The Operational EMPr to be implemented.

	Unpleasant Odours	**Low-Negative, Probable**	• Domestic waste must be stored in approved proof containers (e.g. bins with removable lids). • All condemned carcasses to buried in the demarcated burial site, with trenches that's 1.5m deep, located west of the abattoir. • Condemned carcasses / material gets neutralised with lime and immediately covered with soil. • The trench gets closed immediately after the lime was added. • The control of solid waste, wastewater, any polluted water and/or stormwater must be properly controlled, as per the EMPr.
	Dust The abattoir is currently registered to slaughter 600 sheep on full capacity and is now proposing to expand the slaughter capacity to 1000 sheep a day. This means that the number of vehicles used to transport the animals to the abattoir could result in a slight increase in road traffic. This could lead to an increase in dust generation within the immediate vicinity of the site. However, this impact is of low-negative and is considered to be of low significance. This could be attributed to the fact that the nearest residential dwelling is located approximately 610m south-east of the proposed site. Dust repression measures will be implemented together with the operational EMPr	**Very-Low-Negative, Probable**	• Dust repression measures will be implemented together with the operational EMPr.
	Loss of vegetation	**Negligible, Unlikely**	• All invasive alien plant species encountered on the property should be removed responsibly during the operational phase. • The implementation of the EMPr.
	Indirect impacts: **Socio-economic** **20 new permanent jobs will be created in the operational phase.**	**Low-Medium Positive, Definite**	• No mitigation measures are required. • Permanent jobs will be created during the operational phase.

			• Provision of red meat products to the local community and surrounding areas. • Contribute towards local economic development.
	Cumulative impacts:		
	Direct impacts:		
	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 expansion of the slaughter capacity of an existing abattoir will be undertaken, and the associated socio-economic benefits such as job opportunities, will not be provided.	**Low-Negative, Definite**	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.

Alternative A (preferred alternative)

The following is a summary of the potential impacts, and their ratings after mitigation, and probability of occurrence:

Construction Phase Impacts

The project as proposed does not require 'construction activities to take place, as such the potential impacts thereof is considered irrelevant. This EIA application is for the expansion and related operation of facilities for the slaughter of animals where the daily product throughput will be increased. Ramskop Abattoir is currently registered to slaughter 600 sheep/ goats per day (100 Units). It is proposed that the slaughter capacity be increased from 600 to 1000 sheep/goats per day (167 Units). Quantities of solid waste will be produced during the operational phase. The amount of wastewater from the abattoir will also be increased. The wastewater produced by the abattoir gets discharged at Calvinia Wastewater Treatment Plant ("WWTP").

Operational Phase Impacts

Freshwater resources: **Negligible, Unlikely**

Groundwater resources: **Negligible, Unlikely**

Potential Impact on Archaeological Heritage: **Negligible, Unlikely**

Solid Waste Impact: **Low (Negative), Definite**

Wastewater / Effluent: **Low-Medium (Negative), Definite**

Noise Impact: **Negligible, Unlikely**

Odors Impact: **Low (Negative), Probable**

Dust Impact: **Very Low-Negative, Probable**

Loss of Vegetation: **Negligible, Unlikely**

Socio-economic Impact: **Low-Medium (Positive), Definite**

Decommissioning Phase Impacts

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

Alternative B

Alternative C

No-go alternative (compulsory)

No expansion of the slaughter capacity of an existing abattoir will be undertaken. **Low-Negative, probable**

The "No-Go" alternative will ensure that no potential negative environmental impacts will occur. The proposed development is also sure to have short and long-term benefits with regards to job creation, which are likely to have a positive impact on the local economy.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES	~~NO~~

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

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

Compliance with the EMPr and appointment of an ECO during the construction phase. Recommendations given in the Basic Assessment Report (BAR) should be considered.		
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