

**BASIC ASSESSMENT REPORT FOR THE DEVELOPMENT OF
A 6 KM PIPELINE AND ASSOCIATED INFRASTRUCTURE ON
PORTIONS 3, 4, 5, 6, 7 AND 8, FARM NO. 410, SOUTHERN
FARMS, SKUIT DRIFT, NORTHERN CAPE.**

2nd DRAFT BASIC ASSESSMENT REPORT

Prepared for:

Mr. Morné Steenkamp
Southern Farms (Pty) Ltd
P.O. Box 1321
Stellenbosch
7599
Tel: 021 883 2408
Fax: 021 883 3907
Email: morne@southernfarms.co.za

Prepared by:

Guillaume Nel Environmental Consultants
P.O. Box 2632
Paarl
7620
Tel: (021) 870 1874
Fax: (021) 870 1873
E-Mail: wn@gnec.co.za

GNEC Code: 20331

DNEC Reference Number: NC/BA/16/ZMF/KAI/AUG1/2015



Date: 11 September 2015



TABLE OF CONTENTS

1	SECTION A: ACTIVITY INFORMATION	3
1.	PROJECT DISCRIPTION.....	3
2.	FEASIBLE AND REASONABLE ALTERNATIVES	7
3.	PHYSICAL SIZE OF THE ACTIVITY	12
4.	SITE ACCESS.....	12
5.	LOCALITY MAP (Appendix a)	12
6.	LAYOUT/ROUTE PLAN (appendix a).....	13
7.	SENSITIVITY MAP (APPENDIX A)	13
8.	SITE PHOTOGRAPHS (APPENDIX B)	14
9.	FACILITY ILLUSTRATION (appendix c).....	14
10.	ACTIVITY MOTIVATION	14
11.	APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES	18
12.	WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT	19
13.	WATER USE	21
14.	ENERGY EFFICIENCY	21
2	SECTION B: SITE/AREA/PROPERTY DESCRIPTION.....	22
1.	GRADIENT OF THE SITE	23
2.	LOCATION IN LANDSCAPE	23
3.	GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE	23
4.	GROUNDCOVER.....	24
5.	SURFACE WATER.....	24
6.	LAND USE CHARACTER OF SURROUNDING AREA.....	24
7.	CULTURAL/HISTORICAL FEATURES	25
8.	SOCIO-ECONOMIC CHARACTER	26
9.	BIODIVERSITY.....	27
3	SECTION C: PUBLIC PARTICIPATION.....	29
1.	ADVERTISEMENT AND NOTICE	29
2.	DETERMINATION OF APPROPRIATE MEASURES.....	29
3.	ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES	29
4.	COMMENTS AND RESPONSE REPORT.....	31
5.	AUTHORITY PARTICIPATION.....	31
6.	CONSULTATION WITH OTHER STAKEHOLDERS	32
4	SECTION D: IMPACT ASSESSMENT	33
1.	IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES	33

2.	ENVIRONMENTAL IMPACT STATEMENT.....	45
5	SECTION E. RECOMMENDATION OF PRACTITIONER	47
6	SECTION F: ADDENDUMS.....	48
7	ADDENDUM A - MAPS	49
8	ADDENDUM B - PHOTOGRAPHS.....	50
9	ADDENDUM C – FACILITY ILLUSTRATION(S)	51
10	ADDENDUM D – SPECIALIST REPORTS.....	52
11	ADDENDUM E – PUBLIC PARTICIPATION	53
12	ADDENDUM G – ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)	54
13	ADDENDUM H – DETAILS OF THE EAP AND EXPERTISE	55
14	ADDENDUM I – SPECIALIST’S DECLARATION OF INTEREST	56
15	ADDENDUM J – ADDITIONAL INFORMATION.....	57

PLEASE NOTE: ALL CHANGES TO THE 2ND DRAFT BAR ARE INDICATED IN BLUE



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:	Southern Farms (Pty) Ltd		
Business reg. no. /ID. no.:	2012/015632/07		
Contact person:	Morné Steenkamp		
Postal address:	P.O. Box 1321 Stellenbosch 7599		
Telephone:	021 883 2408	Cell:	082 870 3436
E-mail:	morne@southernfarms.co.za	Fax:	021 883 3907

Prepared by:

Environmental Assessment Practitioner/Firm:	Guillaume Nel Environmental Consultants (GNEC)		
Business reg. no. /ID. no.:	2007/189057/23		
Contact person:	Willene Naudé		
Postal address:	Fabriek Street 45 PO Box 2632 Paarl 7620		
Telephone:	021 870 1874	Cell:	072 157 1321
E-mail:	wn@gnec.co.za	Fax:	021 870 1873

(For official use only)

File Reference Number:

Application Number:

Date Received:

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

Kindly note that:

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

1 SECTION A: ACTIVITY INFORMATION

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

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

1. PROJECT DISCRPTION

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

On February 6th 2014 the Department: Environment and Nature Conservation Northern Cape Province (DENC) granted environmental authorization (**Ref: NC/EIA/03/SIY/KAI/AUG/2013 AND NCP/EIA/0000215/2013, PORTION 3 OF THE FARM 425**) to Southern Farms to expand their agricultural land. (Refer to Addendum A Figure 2 and Figure 6)

1. INTRODUCTION

Southern Farms (PTY) LTD (hereafter referred to as 'The Client'), Farm No. 410, Portions 3; 4; 5; 6; 7; and 8 (hereafter referred to as 'The Property') is situated within the Skuit Drift district, Kai! Garib Local Municipality, and Siyanda District Municipality. The total extent of the property is approximately 1 159 ha and is located approximately 120 km North-West from Kakemas, 62 km North-West from the Augrabies Falls National Park and the N14 road, which connects Kakemas and Pofadder, runs 42km to the south.

Bordering the left bank of the Orange River, The Property, currently comprises 390 ha vineyard and 122 ha date orchards, which is solely dependent on this water source in order to irrigate existing crops. The Client has already obtained environmental authorisation to expand existing agricultural activities with 10 ha vineyard and 236 ha date orchards (58 ha of this has already been planted).

In order to successfully irrigate additional crop fields 11 500 m³ / ha and 14 500 m³ / ha, of water is needed respectively per annum. As current water rights allows these quantities to be extracted and utilized (Attached in Addendum J), no further applications for the extraction of water from a water source from the Department of Water and Sanitation are required.

The Client wish to develop a new pipeline (0.4 m diameter) of approximately 6 km. The proposed pipeline will run from the Orange River and cross Portions 3; 4; 5; 6; 7; and 8 of The Property to ultimately connect with Kudu's poort dam (Refer to Addendum A Figure 3).

The new pipeline will run along the same path as existing pipelines which links three dams that are present on The Property i.e. Luipertshoek dam, Elandskloof dam and Kudu's poort dam.

Three neighborhoods provide accommodation to permanent and seasonal labourers. Southern Farms currently employs 450 permanent - and 1100 seasonal workers, labour housing with electricity supplied by Eskom and water extracted from the Orange River is provided for permanent as well as seasonal workers (Refer to Addendum B). Pocket waste water treatment plants are installed at the various "neighborhoods".

Work opportunities will certainly increase due to the expansion of agricultural activities, thus additional labour housing covering an area of approximately 1.5 ha (two blocks: Blue polygon, less than 1 ha and yellow polygon

more than a hectare) (Please refer to Addendum A Figure 7) is required and is proposed to be developed in the near future, **within the next 3 – 5 years.**

2. DESCRIPTION OF THE ENVIRONMENT

a. Climate:

Annual precipitation range from 70 mm in the west to 240 mm in the east. Mean maximum and minimum monthly temperatures for Kakemas (approximately 120 km from Southern Farms) are 41 °C and -2 °C for January and July respectively. Frost incidents varies from less than 10 days of frost per annum in the west to around 30 days in the east.

b. Vegetation:

The property would historically comprise of three main vegetation units according to Mucina and Rutherford (2006). These are: Bushman and West Griqualand (NKb 1) (least threatened), Blouputs Karroid Thornveld (NKb 2) (least threatened) and Lower Gariep Alluvial Vegetation (Endangered).

There are no major concerns regarding the largest sections of the proposed pipelines which run through least threatened vegetation types. A small section of Section 1 (from the Orange River approximately 200 m) will inevitably cross the Endangered Lower Gariep Alluvial Vegetation type.

Currently natural vegetation has been totally transformed by agricultural activities.

c. Topography:

The topography of Southern Farms comprise hills, low mountains and slightly irregular plains with some rugged terrain with sparse vegetation dominated by shrubs and dwarf shrubs, with annual conspicuous, especially in spring, and perennial grasses and herbs. However no natural vegetation is left on site as the property has been totally transformed due to large scale agricultural activities.

d. Aquatics:

The Orange River borders the proposed development area, but no natural watercourses occur on Southern Farms. A drainage line is clearly visible, this is however not a naturally occurring drainage line, but was created as a result of irrigation run-off from the vineyards located to the north east of the proposed new pipeline. Three prevailing dams are on the Property as seen in Addendum A, Figure 4 (Purple polygons).

e. Geology and Soil:

The region has a complicated geology banded iron formations and amphibolites of Asbestos hills. Subgroup are Vaalian and the carbonates of cherts of the Campbel Group are of the same Era. Metamorphic rocks of the Mokolian Erathem include quartzites and gneisses of the Mokolian Erathem include quartzites and gneisses of the Korannaland Supergroup, as well as the Riemvasmaak gneiss. Metamorphosed clastic sediments of the Uitdraai Formation are also Mokolian.

The remaining half of the area is composed of many other stratigraphies, metamorphosed sediments and outcrops of the ultrametamorphic rocks of the Namaqualand Metamorphic Complex.

The soils are shallow and skeletal (dominant soil forms are Mispah and Glenrosa), typical mainly of Ib and Ic landscapes, and to a lesser extent also Fb land type.

3. BULK SERVICES

Electricity is supplied to the Property by Eskom, and water for irrigation as well as household use is extracted from the river. With regard to sewage management, BIO Sewage Systems installed a pocket waste water treatment plant (capable of treating up to 18 000 litres per day assuming a constant flow of over a 24 hour period) at the newly developed labour houses (refer to Addendum A Figure 8, red polygon).

Bulk water supply is extracted from the Orange river in accordance with the water rights issued to the proponent by the Department of Water and Sanitation. Please refer to Addendum J.

All clean stormwater and surface run-off flows into the Orange River. No contaminated irrigation water is allowed to enter the natural watercourses.

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

Listed activity as described in GN 734, 735 and 736	Description of project activity
<p>Example: <i>GN 734 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</i></p>	<p><i>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</i></p>
<p>Listed Activity as described in the National Environmental Management Act Government Notice No. R. 983 of 2014</p>	
<p>Activity 9 <i>The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water – (i) With an internal diameter of 0.36 metres or more; or (ii) With a peak throughput of 120 litres per second</i></p>	<p>A bulk water pipeline with an internal diameter of 0.4 m is proposed to be developed from the Orange River to Kudu's poort dam.</p> <p>Peak throughput is expected to be greater than 12 l/sec.</p> <p>Thus the pipeline requires authorisation</p>
<p>Activity 12 <i>The development of: (i) Canals exceeding 100 square metres in size; (ii) Channels exceeding 100 square metres in size; (iii) Bridges, exceeding 100 square metres in size; (iv) Dams where the dam, including infrastructure and water surface area, exceeds 100 square metres in size; (v) Weirs, where the weir, including infrastructure and water surface area, exceeds 100 square metres in size; (vi) Bulk storm water outlet structures exceeding 100 square metres in</i></p>	<p>Proposed alternative housing (more than 1 Ha) will be built in the near future (3-5 years)</p>

size; (vii) Marinas, exceeding 100 square metres in size; (viii) Jetties exceeding 100 square metres in size; (ix) Slipways exceeding 100 square metres in size; (x) Buildings exceeding 100 square metres in size; (xi) Boardwalks, exceeding 100 square metres in size or (xii) Infrastructure or structures with a physical footprint of exceeding 100 square metres or more; where such a development occurs: (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists within 32 metres of a watercourse, measured from the edge of a watercourse – excluding – (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbor; (bb) where such development activities are related to the development of a port or harbor, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; or (ee) where such development occurs within existing roads or road reserves

Activity 19

The infilling or depositing of any material of more than 5 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic meters from: (i) A watercourse; (ii) The seashore; (iii) The littoral active zone, an estuary or a distance of 100 meters inland of the high water mark of the sea or an estuary, whichever distance is the greater – But excluding where such infilling, depositing, dredging, excavation, removal or moving; (a) will occur behind a development setback; (b) is for maintenance purposes undertaken with a maintenance management plan; or (c) falls within the ambit of activity 21 in this notice, in which case that activity applies.

No infilling and removal of soil material will take place during the construction phase as the pumps on the riverbed are on wheels (on a trailer) which can be moved when needed. This picture shows existing pumps and the proposed pipeline will be exactly the same as existing pumps and pipelines on the proposed property.



<p>Activity 27 <i>The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i></p>	<p>Proposed development of labour housing more than a hectare.</p>
<p>Listed Activity as described in the National Environmental Management Act Government Notice No. R. 546 of 2010</p>	
<p>Activity 12 <i>The clearance of an area of 300m² or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. (d) In the Northern Cape (i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (ii) Within critical biodiversity areas identified in bioregional plans; (iii) Within the littoral zone or 100 metres inland from high water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; or (iv) On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning</i></p>	<p>The clearance of more than a hectare is required to build additional labour houses, but the proposed site does not fall within a CBA or any protected areas</p>

2. FEASIBLE AND REASONABLE ALTERNATIVES

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

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;

- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

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

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>The proposed development is at Southern Farms is situated within the Skuit Drift district, Kai! Garib Local Municipality, and Siyanda District Municipality. The total extent of the property is approximately 1 159 ha and is located approximately 120 km North-West from Kakemas, 62 km North-West from the Augrabies Falls National Park and the N14 road, which connects Kakemas and Pofadder, runs approximately 42km to the south.</p> <p>The applicant of the proposed development is the owner of the Property thus it is inevitable that such a development should occur on the owners property in order to sufficiently irrigate newly developed agricultural land which will not only boost Southern Farms economy, but create permanent as well as seasonal job opportunities.</p>	28° 31' 54.81" S	19° 42' 56.82"
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
An alternative site is not viable, as the Applicant do not own an alternative property which is suited for such a development.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A		

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

28° 31' 01.02"	19° 42' 06.86"
28° 32' 24.01"	19° 42' 48.74"
28° 32' 49.34"	19° 43' 37.99"

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)
<p>To ease the explanation of the route of the pipeline, the pipeline is divided into three sections (Sections 1; 2 and 3. Please refer to Addendum A Figure 9)</p> <p>The Proposed route of Section 1 of the pipeline is to run directly from the Orange River, where the pump is on a mobile trailer which can be moved when necessary. Then subsurface in a southern direction for approximately 760 m. This runs past the first prevailing dam to the west and second prevailing dam to the east.</p> <p>Section 2 crosses a small drainage line (not a natural drainage line, this drainage line occurs as a result of irrigation water run-off) and runs concurrently 300 m from Section 1 in order to irrigate newly developed date orchids.</p> <p>Section 1 curves in an eastern direction for approximately 300 m where Section 2 of the proposed pipeline will connect and simultaneously run for 140 m in an eastern direction. Thereafter the pipe will switch (Section 3 of the proposed pipeline) in a Southern direction running subsurface alongside the existing gravel road for approximately 2 km with a slight curve in a south western direction connecting to the third existing dam.</p> <p>Thereafter the pipeline will continue in a southern direction adjacent to existing vineyards on the right-hand side for approximately 1 km. Once the pipeline reaches the gravel road the direction will change to east and will run for approximately 800 m gradually curving north. The final part of section 3 will run in a northern direction subsurface and adjacent to newly developed agricultural fields on the eastern side.</p>		
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
<p>No alternative layout is proposed with regard to the development of the new pipeline. The existing five (5) pipelines runs along a specific route, as indicated on the map, thus the proposed pipeline will run subsurface adjacently to existing pipelines.</p>		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A		

c) Technology alternatives

Alternative 1 (preferred alternative)
Similar technology to the existing pipelines will be used (6km in length, 0.4m in diameter). Existing pumps are mobile (on trailers) which can be moved if needed, thus no excavation or dredging is needed with this alternative.
Alternative 2
An alternative would entail construction of a pump within the riverbank. This is not preferred due to the dire environmental impact which may result from infilling and dredging within the riverbank. It is not ideal to construct a pump which is not mobile due to the changing water levels of the Orange River. According to the National Water Act Section 21 (c) and (i), Act 36 of 1998, the laying of a pipeline as well as the construction of a pump will involve the application for water use authorization. Thus Alternative 1 is preferred.
Alternative 3
N/A

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

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

e) No-go alternative

<p>Should the activity not be approved the property will remain in its current state. This will result in no water pipeline infrastructure being constructed on this site that is not considered to be ecologically or heritage sensitive.</p> <p>Due to the fact that the site is regarded as being highly desirable for irrigation purposes for newly developed agricultural land, GNEC is of the opinion that this site should be utilized for the construction of the water pipeline in order to ensure sufficient irrigation.</p> <p>The activity will benefit society in general by creating jobs during both the construction (temporary jobs) and operational (temporary and permanent jobs) phases of the proposed project. The project will also help satisfy the need for water availability and will economically boost Southern Farms and its residents.</p> <p>It is evident that Southern Farms is not considering the No-Go Alternative as the project is critical for the irrigation of newly developed agricultural land. It is GNEC's objective opinion that the No-Go Alternative should therefore not be supported in this case.</p>

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

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:

- Alternative A1¹ (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Size of the activity:

	m ²
	m ²
	m ²

or, for linear activities:

Alternative:

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

Length of the activity:

	+/- 6 000 m
	m
	m

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

Alternative:

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

Size of the site/servitude:

	m ²
	m ²
	m ²

4. SITE ACCESS

Does ready access to the site exist?

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

YES	NO
	N/A

Describe the type of access road planned:

Access is available along the existing gravel roadways, from the main road to all the dams, pump stations and extraction points

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

5. LOCALITY MAP (APPENDIX A)

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:

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

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

6. LAYOUT/ROUTE PLAN (APPENDIX A)

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

The site or route plans must indicate the following:

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

7. SENSITIVITY MAP (APPENDIX A)

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

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

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

8. SITE PHOTOGRAPHS (APPENDIX B)

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

9. FACILITY ILLUSTRATION (APPENDIX C)

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

10. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
Property zoned for agricultural use and the proposed development will be in furtherance thereof.			
2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
The goals and objectives of the Provincial Spatial Development Framework (PSDF) relates to sustainability and sustainable development are premised upon the national directives put forward in the National Framework on Sustainable Development (DEA, 2008) and the National Strategy for Sustainable Development and Action Plan 2011-2014 (NSSD) (DEA, 2011).			
The proposed development will enhance social, economic and technical sustainability.			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
N/A The proposed pipeline is on Southern Farms, Farm No. 410. Thus outside the urban edge. However the pipeline will be located within an already disturbed area where high intensity agricultural activities are being practiced.			

(c) Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
<p>IDP and SDF related initiatives are by default required to be integrated into the Local Municipality planning tools and given their National significance are seen to override / form part of local planning. It is however noted that the proposed development is in accordance with existing activities on Southern Farms and the proposed pipeline will not only boost Southern Farms' economy but create permanent and seasonal job opportunities to local people thus improving their livelihoods.</p>			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain
<p>N/A the proposed pipeline has minimal impacts on the Municipal structures as it is well outside the urban area.</p>			
(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
<p>The property is not considered to be ecologically sensitive. The Orange River is adjacent to the property; however the small section where the proposed pipeline will run has been totally transformed and no natural vegetation occur, thus impacts associated with the proposed pipeline are minimal.</p>			
(f) Any other Plans (e.g. Guide Plan)	YES	NO	Please explain
<p>N/A</p>			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
<p>The development of the new pipeline is vital in order to ensure newly developed agricultural land (As approved by DENC 2014) is sufficiently irrigated.</p>			
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
<p>The pipeline is of utmost importance to ensure the sufficient irrigation of newly developed agricultural fields. (Environmental Authorisation have been obtained to expand agricultural practices). Additional job opportunities will be created, thus enhance the livelihoods of several families.</p>			

<p>5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	YES	NO	Please explain
<p>N/A – no additional municipal service is required.</p>			
<p>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	YES	NO	Please explain
<p>N/A- no additional municipal service is required. Water will be extracted from the Orange River, which has sufficient capacity and the rights for which has been allocated to Southern Farms.</p>			
<p>7. Is this project part of a national programme to address an issue of national concern or importance?</p>	YES	NO	Please explain
<p>The proposed development will boost Southern Farms' economy, but will have no significant effect of National Concern</p>			
<p>8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</p>	YES	NO	Please explain
<p>The proposed pipeline will connect existing dams on The Property and contribute to efficient water requirements for irrigation purposes with regard to newly developed agricultural areas.</p>			
<p>9. Is the development the best practicable environmental option for this land/site?</p>	YES	NO	Please explain
<p>The proposed development does not comprise any existing land-uses, and the preferred alignment has been positioned according to existing pipelines, pump stations and dams, thus limiting environmental impacts on undisturbed areas.</p>			
<p>10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</p>	YES	NO	Please explain
<p>There are minimal negative impacts associated with the proposed development. The impacts with regard to extraction of water from the Orange River have been considered, but have been deemed acceptable in terms of Southern Farms' water rights.</p>			
<p>11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?</p>	YES	NO	Please explain
<p>The development of a pipeline to sufficiently supply irrigation water for newly developed agricultural fields, may influence the expansion of even more development of agricultural practices thus similar activities in the area could occur in the near future.</p>			

12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
No persons' rights will be comprised or interfered with.			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
N/A- the proposed development is outside the urban edge thus not considered to be an inappropriate activity.			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPs)?	YES	NO	Please explain
The pipeline will not directly contribute to the 17 SIP's, but local communities could benefit with regard to possible job opportunities.			
15. What will the benefits be to society in general and to the local communities?	Please explain		
The direct influence of a pipeline is minimal, but the expansion of this in order to irrigate newly developed land will create jobs for local communities with regard to maintenance, harvesting and planting as well as exporting.			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
N/A			
17. How does the project fit into the National Development Plan for 2030?	Please explain		
This development will create additional jobs, thus enhancing the livelihoods of several families, and minimising poverty and unemployment which are one of the greatest concerns in the Northern Cape (Northern Cape: Provincial Development and Resource Management Plan, 2012)			

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

The Impact Assessment process conforms to the principles of Integrated Environmental Management (IEM). The process attempts to identify all potential impacts as well as identify practical means by which the developer can develop the necessary mitigation measures to manage these impacts. The EIA process is structured in a way to identify environmental risks, lessen community conflict by actively promoting public participation, propose the means to minimise adverse environmental affects and inform all relevant government decision makers.

The impact assessment will ensure that all environmental assessments are integrated into all aspects of the proposed project's life cycle, construction/operation and decommissioning.

The EIA process identified all possible impacts. These impacts were evaluated to determine the actual impact on the environment. The triple bottom approach was taken whereby the socio, economic and environmental impacts were assessed. This also ensured that Section 2(3) of NEMA was adhered to.

Section 2(4) of NEMA was further taken into consideration to ensure that ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied.

The proposed pipeline will be constructed in such a way as to ensure that pollution and degradation is avoided by the enforcing of the attached EMP.

It is not foreseen that National and Cultural heritage will be disturbed by the proposed development. Waste will be minimized by the implementation of the attached Waste Minimization plan which forms part of the project EMP.

A full public participation as per Section 54 is being undertaken as part of this assessment.

The effects of the activities were assessed to ensure the environmental aspects receive adequate consideration before construction actions are taken.

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

The EIA process identified all possible impacts. These impacts were evaluated to determine the actual impact on the environment. The triple bottom approach was taken whereby socio, economic and environmental impacts were assessed. This also ensured that Section 2(3) of NEMA was adhered to.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

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

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act (EIA) Regulations (2014)	Project requires Environmental Authorisation	DENC	Pending

12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

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

YES NO

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

Unknown m³

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

All construction solid waste will be removed from the site with large loading vehicles (Please refer to Addendum G)

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

Vehicles will dump construction solid waste at the Municipal landfill site (Please refer to Addendum G)

Will the activity produce solid waste during its operational phase?

YES NO

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

m³

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

N/A

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

N/A

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

N/A

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

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

YES NO

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

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

YES NO

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

b) Liquid effluent

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

YES	NO
-----	----

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

m 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:			
Contact person:			
Postal address:			
Postal code:			
Telephone:	Cell:		
E-mail:	Fax:		

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

N/A

c) Emissions into the atmosphere

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

YES	NO
-----	----

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

YES	NO
-----	----

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

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

Dust emissions during the Operational and Maintenance Phase primarily from vehicles on access roads will occur, but this deemed not significant.

d) Waste permit

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

YES	NO
-----	----

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

e) Generation of noise

Will the activity generate noise?

YES	NO
-----	----

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

YES	NO
-----	----

Describe the noise in terms of type and level:

Only noise will be as a result of vehicles, however this will be confined to the construction phase. During the operational phase the noise will be similar to current activities on the property.

13. WATER USE

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

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	The 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:

2 166 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.

14. ENERGY EFFICIENCY

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

Currently Eskom provides electricity to the property and the water pump stations currently on the property is technologically advanced to ensure energy is used efficiently.

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

N/A

2 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	Siyanda District Municipality
Local Municipality	Kai! Garib Local Municipality
Ward Number(s)	
Farm name and number	Southern Farms (Pty) Ltd
Portion number	3; 4; 5; 6; 7 and 8
SG Code	C03600000000041000003; C03600000000041000004; C03600000000041000005; C03600000000041000006; C03600000000041000007; C03600000000041000008

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

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

The current land zoning on Southern Farms, Farm 410 is zoned Agriculture 1

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

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

YES NO

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-------------	-------------	-------------	--------------	-------------	------------------

Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-------------	-------------	-------------	--------------	-------------	------------------

Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
------	-------------	-------------	-------------	--------------	-------------	------------------

2. LOCATION IN LANDSCAPE

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

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

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

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

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

4. 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.

5. SURFACE WATER

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

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

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

The perennial River – Orange River is the Northern Border of the Property

6. LAND USE CHARACTER OF SURROUNDING AREA

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

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

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

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

N/A

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

N/A

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

N/A

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

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

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

The proposed development will entail a small section of the pipe which will cross the endangered Lower Garib Alluvial vegetation adjacent to the Orange River, this however is not significant as the small section has already been disturbed due to previous development activities, thus no natural vegetation occur (Refer to Addendum B, Figure 9)

7. CULTURAL/HISTORICAL FEATURES

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

YES **NO**

Uncertain

N/A

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:

N/A

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.

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

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

Level of unemployment:

According to Census 2011, Kai! Garib Local Municipality has a total population of 65 869 people, of whom 62,2% are coloured, 28,3% are black African, 6,3% are white, and 0,8% are Indian/Asian. The other population groups make up the remaining 2.3%. In this municipality, 34.6% of households are headed by females. 30 949 people are economically active (employed or unemployed but looking for work), and of these, 10% are unemployed. Of the 19 375 economically active youth (15 – 35 years) in the area, 10% are unemployed

Economic profile of local municipality:

Generally poor farm workers

Level of education:

Of those aged 20 years and older, 8,7% have completed primary school, 39,1% have some secondary education, 15,5% have completed matric, and 3,9% have some form of higher education, while 9,0% of those aged 20 years and older have no form of schooling.

b) Socio-economic value of the activity (Not known at this stage)

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

Not known at this stage

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

Not known at this stage

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?

Not known at this stage

What is the expected value of the employment opportunities during the development and construction phase?
 What percentage of this will accrue to previously disadvantaged individuals?
 How many permanent new employment opportunities will be created during the operational phase of the activity?
 What is the expected current value of the employment opportunities during the first 10 years?
 What percentage of this will accrue to previously disadvantaged individuals?

Not known at this stage
Not known at this stage
60 Permanent 1 100 Seasonal
Not known at this stage
Not known at this stage

9. BIODIVERSITY

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

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

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	

- 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%	Agricultural activities – vineyards and dates

c) Complete the table to indicate:

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

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

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

The property comprise three main vegetation units according to Mucina and Rutherford (2006), Bushman and West Griqualand (NKb 1) (least threatened), Blouputs Karroid Thornveld (NKb 2) (least threatened) and Lower Gariep Alluvial Vegetation (Endangered).

There are no major concerns regarding the largest sections of the proposed pipelines which run through least threatened vegetation types. A small section of Section 1 (from the Orange River approximately 200 m) will inevitably cross the Endangered Lower Gariep Alluvial Vegetation type.

Currently natural vegetation has been totally transformed by agricultural activities.

3 SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Gemsbok	
Date published	27 May 2015	
Site notice position	Latitude	Longitude
	28° 33' 03.74"	19° 43' 02.21"
Date placed	5 May 2015	

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

2. DETERMINATION OF APPROPRIATE MEASURES

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

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

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Morné Steenkamp	Land Owner	082 870 3436
Willem Visser	Foreman	076 328 7108
Louis Hanekom	Foreman	082 558 7430
Fanus Nel	Neighbour	084 787 8493
Kobus Strydom	Engineer	082 921 9147

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

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

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
After the First Public Participation 27 May 2015 – 29 June 2015. The district Municipality ZF Mgcawu, Department of Agriculture Land Reform and Rural Development as well as Department of Water and Sanitation commented on the proposed pipeline development.	

<p>No major issues were raised and feedback was positive.</p>	
<p>The district municipality supported the development as well as the Department of Agriculture which foreseen no problems in the development as long as the developer adheres to the articles of Act 43 of 1983:</p> <p>Article 7.(3)b of Regulation 9238: Conservation of Agricultural Resources, 1983 (Act 43 of 1983) Utilisation and protection of vleis, marshes, water sponges and water courses:</p> <p>7.(1) "... no land user shall utilise the vegetation in a vlei, marsh or water sponge or within the flood area of a water course or within 10 metres horizontally outside such a flood area in a manner that causes or may cause the deterioration of or damage to the natural agriculture resources."</p> <p>(3)(b) "cultivate any land on his farm unit within the flood area of a watercourse or within 10 metres horizontally outside the flood area of a watercourse</p>	<p>The developer wishes to develop a new pipeline adjacent to existing pipelines on the farm, thus no construction or cultivation will take place within the watercourse. No infilling and removal of soil material will take place during the construction phase as the pumps on the riverbed are on wheels (on a trailer) which can be moved when needed. The proposed pipeline will be exactly the same as existing pumps and pipelines on the proposed property.</p>
<p>The Department of Water and Sanitation addressed the following:</p> <ol style="list-style-type: none"> 1. Distance from the watercourse 2. Storm water Management 3. Invasive alien vegetation 4. Design and layout alternatives 5. Construction 6. Waste Management 7. Rehabilitation 8. Water use entitlement 	<ol style="list-style-type: none"> 1. As mentioned above the pump for the proposed pipeline will be the same as existing and is thus mobile (on a trailer) which could be moved when needed 2. An Environmental Management Programme is attached as Addendum G which assist with Storm Water Management 3. Alien vegetation management is also addressed in the EMP attached 4. A detailed layout plan showing all the facilities in the proposed development will be submitted to the Department 5. No infilling and removal of soil material will take place during the construction phase as the pumps on the riverbed are on wheels (on a trailer) which can be moved when needed. The proposed pipeline will be exactly the same as existing pumps and pipelines on the proposed property. 6. A waste minimisation plan is attached to this document in Addendum G

	<p>7. Also addressed in the EMP</p> <p>8. Water Rights have been attached in Addendum J</p>
--	---------------------------------------------------------------------------------------------

4. COMMENTS AND RESPONSE REPORT

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

No comments received from any I&APs for this process to date

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	Fax No	e-mail	Postal address
DWS	Mr Steven Shibambu	0543385800	053 831 4534	ShibambuS@dws.gov.za	Chief Director: Northern Cape Private Bag X6101 KIMBERLEY 8300
DENC	Mrs. Daneo Moleko	0538077430	086 625 6470	'dmoleko@ncpg.gov.za'	Metlife Towers Post Office Building, T-Floor and 1st Floor Kimberley 8301 Private Bag X6120
DENC Case Officer	Mr Ordain Riba	0732509489		Oriba.denc@gmail.com	
Siyanda District Municipality	Mr. Frikkie Ruppung	071 972 1122		frupping@zfm-dm.gov.za	Private Bag X6039, Upington, 8800
Department of Agriculture	Mr Nico Toerien	0719721122			Private Bag X5018, Kimberley, 8300

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

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

6. CONSULTATION WITH OTHER STAKEHOLDERS

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

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

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

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

4 SECTION D: IMPACT ASSESSMENT

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

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

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

(a) Impacts that may result from the planning, design and construction phase, significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the planning, design and construction phase.

Potential impacts on geographical and physical aspects:	
Nature of impact:	Impacts on existing vegetation
Extent and duration of impact:	Long term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Improbable
Cumulative impact prior to mitigation:	High
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	During post-construction the vegetation to be used for landscaping the site should be naturally occurring indigenous vegetation.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential impact on biological aspects:	
Nature of impact:	Impacts on biological aspects (small rodents living on the site).
Extent and duration of impact:	Long term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	High
Degree to which the impact may cause irreplaceable loss of resources:	Improbable
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	<p><u>All activities on site must comply with:</u></p> <p>The regulations of the Animal Protection Act, 1962 (Act No. 71 of 1962); and Marine Living Resources Act, 1998 (Act No. 18 of 1998).</p> <p>All construction workers must be informed that the intentional killing of any animal is not permitted as faunal species are a benefit to society. Poaching is illegal and it must be a condition of employment that any employee caught poaching will be dismissed. Employees must be trained on how to deal with fauna species as intentional killing will not be tolerated. In the case of a problem animal e.g. a large snake a specialist must be called in to safely relocate the animal if the EO or ECO is not able to.</p>
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential impacts on socio-economic aspects:	
Nature of impact:	Provision of temporary and long-term jobs.
Extent and duration of impact:	<p>Short term – construction.</p> <p>Long-term – Permanent and seasonal job opportunities on Southern Farms</p>

Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	Low Positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Positive
Degree to which the impact can be mitigated:	N/A, do not want to mitigate positive impacts.
Proposed mitigation:	N/A, do not want to mitigate positive impacts.
Cumulative impact post mitigation:	Low Positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Positive

Potential impacts on cultural-historical aspects:	
Nature of impact:	No impacts of the cultural historical aspects are foreseen.
Extent and duration of impact:	Long term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Highly unlikely
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	<p>Should any archaeological artefacts be exposed during construction activities, work on the area where the artefacts were found shall cease immediately and the ECO as well as the Local Council shall be notified within 24 hours.</p> <p>Upon receipt of such notification, the ECO will arrange for the excavation to be examined by an Archaeologist.</p> <p>Under no circumstances shall archaeological artefacts be removed, destroyed or interfered with.</p>

	Any archaeological sites exposed during demolition or construction activities must not be disturbed prior to authorisation by the Northern Cape Heritage Authority and/or the South African Heritage Resources Agency on the appropriate provincial heritage resource agency.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential noise impacts:	
Nature of impact:	Construction activities.
Extent and duration of impact:	Short term – Construction activities will last for a few months.
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low to Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low to Medium
Degree to which the impact can be mitigated:	Low to Medium
Proposed mitigation:	<p>All construction vehicles must be in a good working order to reduce possible noise pollution.</p> <p>Work hours during the construction phase shall be strictly enforced unless permission is given (07H00 – 18H00). Permission shall not be granted without consultation with the local industries and businesses by the EO. No work to be done on Sundays.</p> <p>Since the proposed development is isolated and outside the urban edge it is not expected that the noise impacts during the operational phase will be significant.</p>
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential visual impacts:	
Nature of impact:	Construction activities and operational activities
Extent and duration of impact:	Construction - Short term Operational – N/A (pipeline sub-surfaced)
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low to Medium
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low to Medium
Proposed mitigation:	Shade cloth must be utilised to conceal and minimise the visual impact of contractor camps, lay down and storage areas. Rubble and litter must be removed every two weeks or more often as the need arises and be disposed of at a registered landfill site.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

- (b) **Impacts that may result from the operational phase significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the operational phase.**

Potential impacts on the geographical and physical aspects:	
Nature of impact:	Appearance of the site due to pipeline constructed.
Extent and duration of impact:	Permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A There are no geographical resources available on the site.

Cumulative impact prior to mitigation:	Low Positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Positive
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	Landscaping with indigenous vegetation will be done after construction is finished.
Cumulative impact post mitigation:	Low Positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Positive

Potential impact biological aspects:	
Nature of impact:	Since there are no naturally occurring indigenous vegetation present on the site there will be no significant impact on any flora on the site.
Extent and duration of impact:	Permanent.
Probability of occurrence:	Definitely
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	NA
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	NA
Proposed mitigation:	NA
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential impacts on the socio-economic aspects:	
Nature of impact:	Positive impacts as this project will provide temporary jobs during the construction phase and temporary and permanent jobs during the operational phase.
Extent and duration of impact:	Long term and short term – operational phase.
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	Low Positive
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	LOW Positive
Degree to which the impact can be mitigated:	N/A, do not want to mitigate positive impacts.
Proposed mitigation:	N/A, do not want to mitigate positive impacts.
Cumulative impact post mitigation:	Low Positive
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low Positive

Potential impacts on the cultural-historical aspects:	
Nature of impact:	No significant impacts on the cultural historical aspects are foreseen as the proposed water pipeline will be sub-surfaced.
Extent and duration of impact:	Long term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Medium

Proposed mitigation:	<p>Should any archaeological artefacts be exposed during construction activities, work on the area where the artefacts were found shall cease immediately and the ECO as well as the Local Council shall be notified within 24 hours.</p> <p>Upon receipt of such notification, the ECO will arrange for the excavation to be examined by an Archaeologist.</p> <p>Under no circumstances shall archaeological artefacts be removed, destroyed or interfered with.</p> <p>Any archaeological sites exposed during demolition or construction activities must not be disturbed prior to authorisation by the Heritage Western Cape and/or the South African Heritage Resources Agency on the appropriate provincial heritage resource agency.</p>
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential noise impacts:	
Nature of impact:	The noise impacts from the proposed water pipeline will be similar to those of the surrounding activities and is therefore not expected to be significant.
Extent and duration of impact:	Permanent
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Low
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	N/A. Noise impacts during the operational phase will not be significant as the pipeline will be sub-surfaced.
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

Potential visual impacts:	
Nature of impact:	Construction of water pipeline.
Extent and duration of impact:	Long term
Probability of occurrence:	Definite
Degree to which the impact can be reversed:	Low
Degree to which the impact may cause irreplaceable loss of resources:	Highly unlikely
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	N/A water pipeline sub-surfaced
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	Low

(c) **Impacts that may result from the decommissioning and closure phase significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase.**

Potential impacts on the geographical and physical aspects:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A

Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impact biological aspects:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impacts on the socio-economic aspects:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A

Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential impacts on the cultural-historical aspects:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential noise impacts:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A

Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

Potential visual impacts:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A
Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

(d) Any other impacts:

Potential impact:	N/A
Nature of impact:	N/A
Extent and duration of impact:	N/A

Probability of occurrence:	N/A
Degree to which the impact can be reversed:	N/A
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (Low, Medium, Medium-High, High, or Very-High)	N/A

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

2. ENVIRONMENTAL IMPACT STATEMENT

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

Alternative A (preferred alternative)

No significant impact, similar to current activities on site. No natural vegetation occurring on site as it is totally transformed by agricultural activities

Alternative B

N/A

Alternative C

N/A

No-go alternative (compulsory)

Should the activity not be approved the property will remain in its current state. This will result in no water pipeline infrastructure being constructed on this site that is not considered to be ecologically or heritage sensitive.

Due to the fact that the site is regarded as being highly desirable for irrigation purposes for newly developed agricultural land, GNEC is of the opinion that this site should be utilized for the construction of the water pipeline in order to ensure sufficient irrigation.

The activity will benefit society in general by creating jobs during both the construction (temporary jobs) and operational (temporary and permanent jobs) phases of the proposed project. The project will also help satisfy the need for water availability and will economically boost Southern Farms

It is evident that Southern Farms is not considering the No-Go Alternative as the project is critical for the irrigation of newly developed agricultural land. It is GNEC's objective opinion that the No-Go Alternative should therefore not be supported in this case.

5 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).

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.

- Construction should only commence in dry seasons
- Topsoil should be rehabilitated
- The EMP should be adhered to at all times
- An on-site ECO should be appointed and inspect the site bimonthly
- ECO reports should be submitted to DENC

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

6 SECTION F: ADDENDUMS

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

7 ADDENDUM A - MAPS



8 ADDENDUM B - PHOTOGRAPHS



9 ADDENDUM C – FACILITY ILLUSTRATION(S)



10 ADDENDUM D – SPECIALIST REPORTS



11 ADDENDUM E – PUBLIC PARTICIPATION



12 ADDENDUM G – ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)



13 ADDENDUM H – DETAILS OF THE EAP AND EXPERTISE



14 ADDENDUM I – SPECIALIST’S DECLARATION OF INTEREST



15 ADDENDUM J – ADDITIONAL INFORMATION

