

Draft Scoping Report

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended the Environmental Impact Assessment Regulations, Dec 2014.

PROPOSED AGRICULTURAL DEVELOPMENT ON FARM 629, PORTION 1 OF FARM ZOUTPOORTJIE 134 AND PORTION 3 OF FARM BRAKLEEGTE 135, KIRKWOOD, CACADU DISTRICT, EASTERN CAPE



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Date: June 2017



EXECUTIVE SUMMARY

Locality:

The proposed properties on which the agricultural development and associated infrastructure will take place are situated on Farm 629, Portion 1 of Farm 134 and Portion 3 of Farm 135, Kirkwood. The farms are situated 11km Southeast of Kirkwood and are accessed by the road running between the R336 and R75 see Figure 1. The site lies south of the R336 and Northeast of the R75. The property is currently zoned Agriculture.

The owner of the properties is Ginkel Venter Familie Trust and PBPS was appointed as the independent consultant to undertake the EIA process.

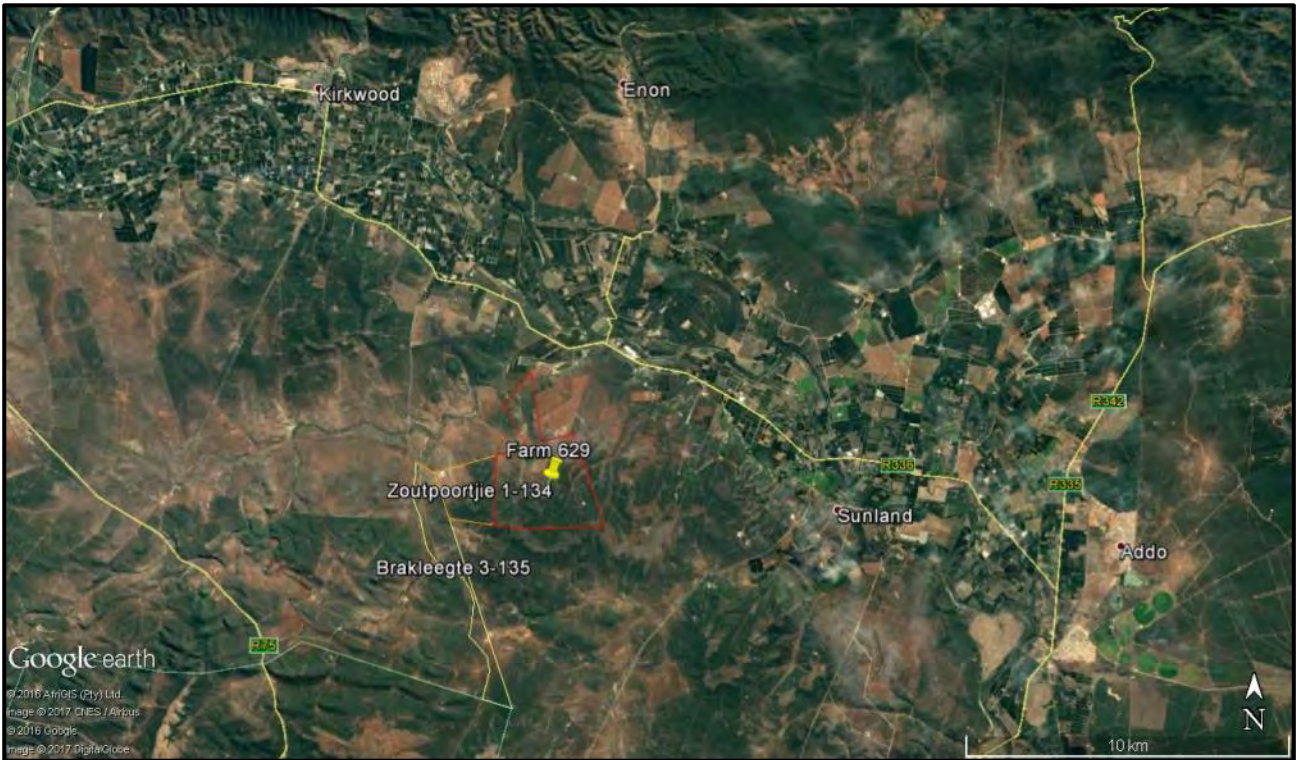


Figure 1: Locality

SG 21 Digit Codes

C	0	7	6	0	0	0	0	0	0	0	0	0	6	2	9	0	0	0	0	0
C	0	7	6	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	1
C	0	7	6	0	0	0	0	0	0	0	0	0	1	3	5	0	0	0	0	3

Proposed development:

The proposed development is to establish agricultural areas for the cultivation of cash crops on areas with indigenous vegetation, previously disturbed by agricultural activities. All proposed cultivation areas have existing access and infrastructure.



Figure 2: Proposed Agricultural areas.

As per the above Figure 2, the proposed development is for the following:

1. Transformation of approximately 190 ha of indigenous vegetation to cultivation areas for cash crops.

The following is a more detailed summary of the proposed development:

1. New cultivation areas:

It is proposed to clear approximately 190 ha of vegetation for the establishment of cultivation areas. Some of these sections have been previously cultivated, however the vegetation has re-established on site. The area was disturbed prior to the applicant purchasing the property and Google Earth Imagery indicated that it has been disturbed since 2004. Two blocks were designed on the property, see Figure 3.

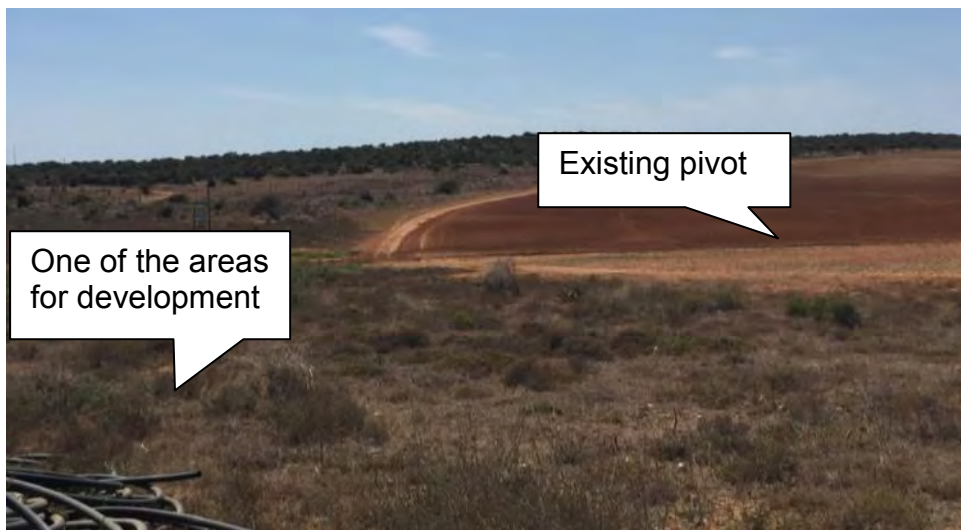


Figure 3: Proposed cultivation site adjacent to existing pivot

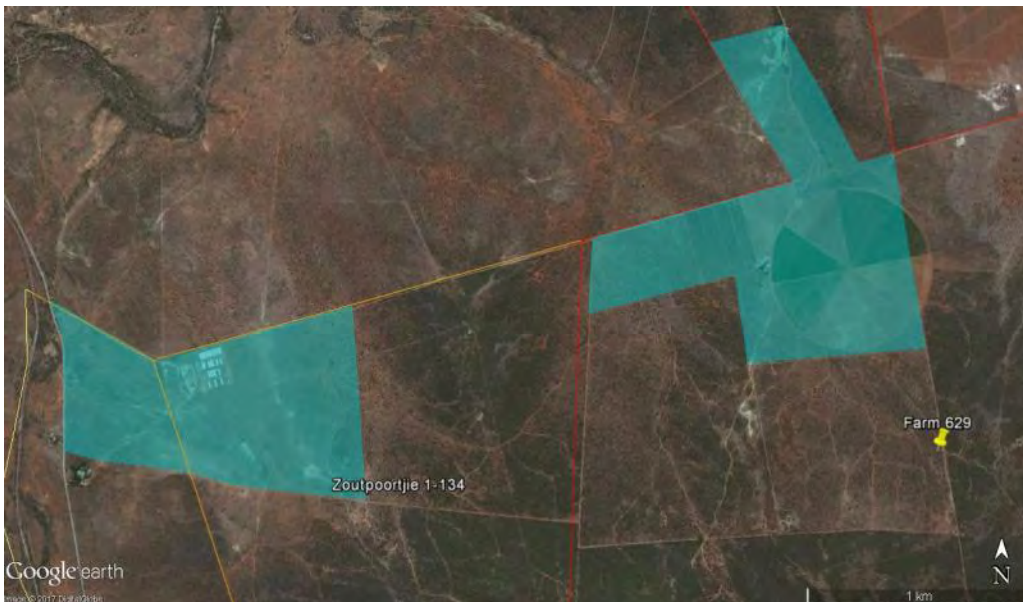


Figure 4: Block layout

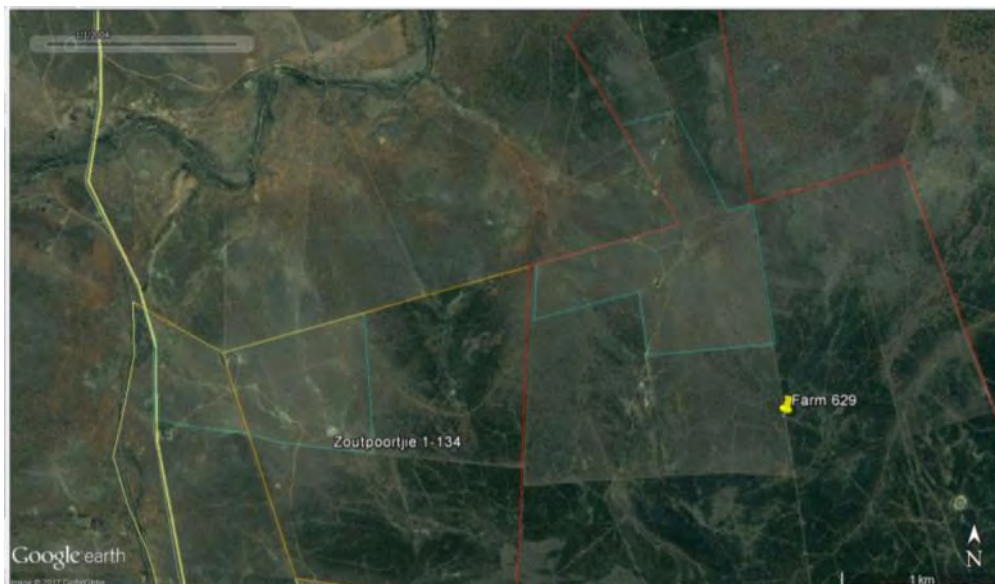


Figure 5: Google Earth evidence indicating the proposed sites have been disturbed since 2004

Baseline information

- Vegetation:

The proposed development area will falls within the Sundays Thicket classification. See summary below from SANBI:

SUNDAYS THICKET

Sundays Thicket is distributed in the Eastern Cape. It can be found from the surrounds of Uitenhage and the northern edge of Port Elizabeth into the lower Sundays River Valley to east of Colchester and northwards to the base of the Zuurburg Mountains and stretching westwards north of the Groot Winterhoek Mountains to roughly the Kleinpoort longitude. Also an extensive area north of the Klein Winterhoek Mountains including much of the Jansenville District and parts of the far-southern Pearston District and far-western Somerset East District. Altitude ranges between 0–800 m.

Vegetation & Landscape Features include Undulating plains and low mountains and foothills covered with tall, dense thicket, where trees, shrubs, and succulents are common, with many

spinescent species. The transition between lower and upper canopies is obscured by the presence of a wide variety of lianas. The local dominance of *Portulacaria afra* increases and the relative abundance of woody species present decreases with increasing aridity. There is considerable structural heterogeneity within this vegetation unit.

ALBANY ALLUVIAL VEGETATION

A small area of the properties falls within the Albany Alluvial Vegetation (AZa 6).

Albany Alluvial is found Between East London and Cape St Francis on wide floodplains (usually close to the coast where the topography becomes flatter) of the large rivers such as the Sundays, Zwartkops, Coega, Gamtoos, Baviaanskloof, Great Fish River etc. This alluvial unit is embedded within the Albany Thicket Biome. Altitudes ranging from 20–1 000 m.

Vegetation & Landscape Features include Two major types of vegetation pattern are observed in these zones, namely riverine thicket and thornveld (*Acacia natalitia*). The riverine thicket tends to occur in the narrow floodplain zones in regions close to the coast or further inland, whereas the thornveld occurs on the wide floodplains further inland.

CRITICAL BIODIVERSITY AREAS & ECOLOGICAL SUPPORT AREAS

Critical Biodiversity Areas (CBAs) were determined by the Biodiversity Sector Plan for the Sundays River Valley Municipality (2012). The BSP aims to provide a common point of reference of biodiversity priority areas for municipal officials, environmental and planning professionals, the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), the Departments of Water and Environmental Affairs (DWEA), the Department of Agriculture, Forestry and Fisheries (DAFF), various other government and non-government agencies, landowners, developers, estate agents and the general public.

A portion of Portion 3 of Farm Brakleegte 135 falls within a CBA, and the rest of the properties fall within an Ecological Support Area. Please note that the farms were disturbed by previous agricultural activities.

An assessment report will however form part of the EIA phase of this development if required by the department, with more detail on the vegetation types and possible impacts, however no significant impacts are expected.

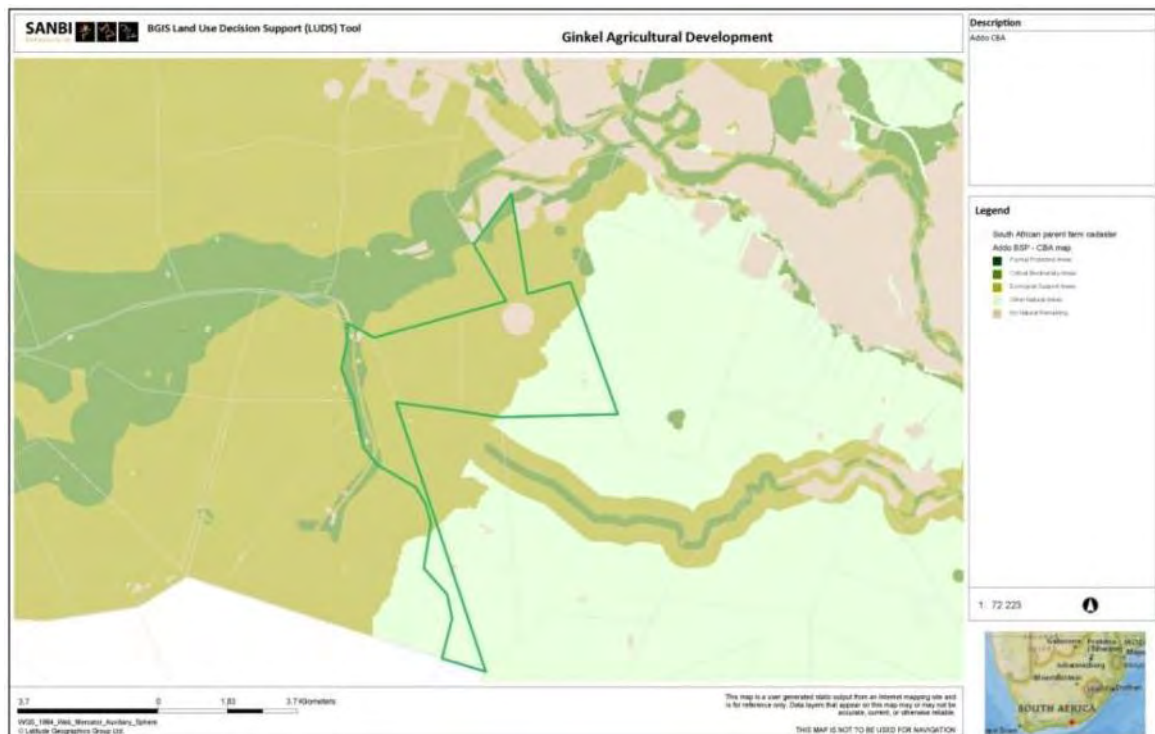


Figure 6: Portion of the Critical Biodiversity Areas map for the Addo BSP showing indicating that a portion of Portion 3 of Farm 135 falls within a CBA.

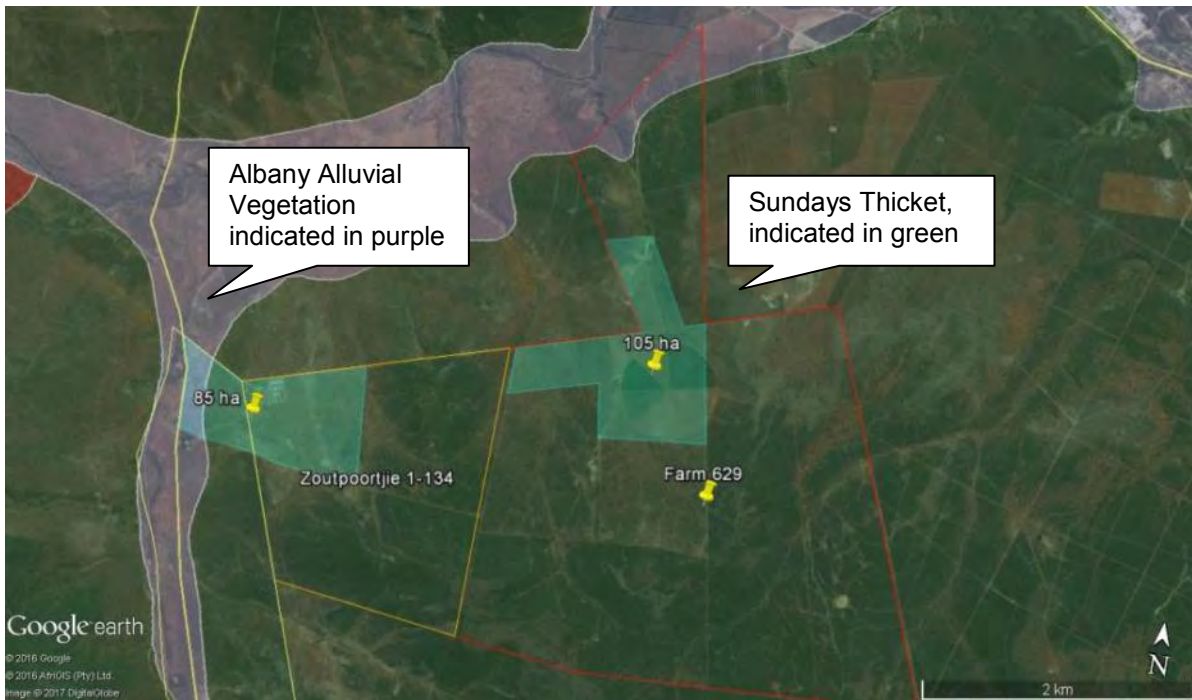


Figure 7: Vegetation classification of proposed site for development

- Heritage, Archaeology and Palaeontology

A Heritage/Archaeological specialist will be appointed to assess the site and an application will be lodge to ECPHRA and SAHRA. It is highly probable that a Phase 1 Heritage Impact Assessment (HIA) will have to be compiled for the EIA phase.

- Socio-Economic Environment.

SOCIO:

The applicant properties as part of the Ginkel Venter Familie Trust is a commercial agricultural (farming and game) unit, which is currently being farmed on a commercial basis. The properties are situated within an area surrounded by other farms and farming communities.

The closest town to the farm is the town of Kirkwood. A very competent and motivated workforce manages the other properties as part of company and contributes positively to the local economy and the provision of job opportunities in the region and the Eastern Cape Province.

It is envisaged that the applicant will need to create some new permanent and a number of new seasonal employee positions in the near future should the new development be approved.

Cash crop production can be labour-intensive, even more so if packed as well. It creates around four new employment positions per hectare if also packed on the farm. The new development will therefore possibly create an immediate need to appoint more workers and supervisors.

The new development will lead to the expansion of the farming operation, and will create a demand for new staff and new skills, eg.

- Skilled agricultural labourers
- Specific knowledge of crop production will be needed
- Specific knowledge of packing will be needed
- Support staff will be needed: Admin, forklift drivers, tractor operators and Code 14 drivers.

Preference will be given to black/coloured people for these positions, and more specific black/coloured women where possible.

Existing employees with experience on the farm, plus the potential to be leaders, will in the first place be identified for new supervisory positions.

ECONOMIC:

In a rural area such as this with a high unemployment rate, any new employment positions have a huge impact on the immediate and extended families of such new workers. Add then also the impact of more people with proper housing, undergoing skills training and going to church, sport, etc. and children going to school, to understand the positive impact on this rural community. Even seasonal work opportunities has the advantage of extra income plus the opportunity to gain skills that can in future be used to gain permanent employment on the farm or elsewhere.

Not only are the new employment opportunities important, but also the fact that:

1. Existing jobs can be secured: Farming development will directly secure existing and new job opportunities.
2. More sustainable development will immediately create the opportunity to proceed with the opportunity to plant new varieties and different crops that can spread the preparation, harvesting and packing seasons over longer periods. This will support the entity in their efforts to convert as much as possible seasonal job opportunities into permanent job opportunities. Especially black females from the farm and neighbouring towns will benefit here. The positive impact on their lives will even be more as more of them will now also be promoted to supervisor level to help manage the increased production as well as the increase in value-adding volume.
3. The increase in production of produce will bring more capital to the province which is much needed to strengthen our economy and as such fully supported by Government.

The Agri-BEE report will be included in the EIA phase of the development.

- Electricity

The development falls within the capacity of Eskom. Note that additional electrical capacity is not necessary for the agricultural areas, as existing usage is sufficient.

- Water Use License Application

The developer makes an application for a license in terms of the National Water Act, 1998, Ginkel Venter Familie Trust for the transfer water rights, the water usages is summarised as the follows:

<i>(a) taking water from a water resource;</i>	Transfer of water rights
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An independent attorney has been appointed to handle the application on behalf of the applicant.

- Alternative energy and optimisation

The proposed development of the areas will in effect result in the following measures to reduce energy and water usage:

- Use water sparingly and the latest irrigation technology and scheduling methods are always implemented.
- Best practices to reduce water consumption and lowest possible electricity consumption.

Alternatives:

The development layout was developed using an opportunities and constraints analysis which included on the constraints side, mainly the suitability of the agricultural areas on the particular position from a design perspective as well as possible impacts on natural vegetation, this is clearly outlined in Alternative 1 (preferred alternative). From a technology perspective the suitability of the proposed agricultural activities to be established on the property, this is outlined in alternative 1 and 2. For the Scoping Process the following were considered, Alternative 1 (preferred alternative), Alternative 2 the agricultural activities alternative, and Alternative 3, the No-Go Option.

No site alternative was considered as this is the applicant's property, no other properties are available and this site has close access to the existing pipelines and infrastructure. The site was

previously disturbed by agricultural areas and is less sensitive compared to other sections on the farms. Also no technology alternatives are available.

The alternatives considered for the development are described below:

ALTERNATIVE 1 (PREFERRED LOCATION/DESIGN AND TECHNOLOGY ALTERNATIVE):

This option will consist of agricultural land to be established, clearly outlined according to:

1. Transformation of approximately 190 ha of indigenous vegetation to cultivate various cash crops. The layout is shown below in Figure 8.



Figure 8: Alternative 1 – All proposed development areas



Figure 9: Comparison of proposed sites to rest of farms

This alternative is considered as preferred for the following reasons:

- From a design perspective this alternative was the best option. It took into consideration design measures by establishing agricultural areas as far as possible on areas that have already been disturbed.
- This alternative also located the development close to already existing dam and pipelines to reduce additional infrastructure needed as part of the proposed development.
- The area overlaps with areas already used for the cultivation of crops, thus expanding the area by not disturbing other areas.
- From a financial perspective this alternative was the best option. This development will contribute to the local and national market.
- From a vegetation perspective this alternative will have a low negative impact on vegetation as the area was previously disturbed by agricultural activities and is more degraded compared to other sections of the farm, see Figure 9.
- From a heritage/archaeological perspective this alternative will not have a significant impact, most probably a low impact with mitigation measures.
- This alternative will also fully utilise the farms agricultural potential according to existing water use rights and additional rights to be transferred.
- This alternative will also contribute socially to the upliftment of the existing workers through additional job opportunities.

It is clear therefore that this alternative meets the requirements of the socio-economic, vegetation, and design considerations and was deemed preferred.

ALTERNATIVE 2 (TECHNOLOGY ALTERNATIVE):

This option will consist of agricultural land to be established, clearly outlined according to:

1. Location – Farm 629, Portion 1 of Farm 134 and Portion 3 of Farm 135
2. Size – approximately 190 ha
3. Proposed agricultural activity – grazing of cattle

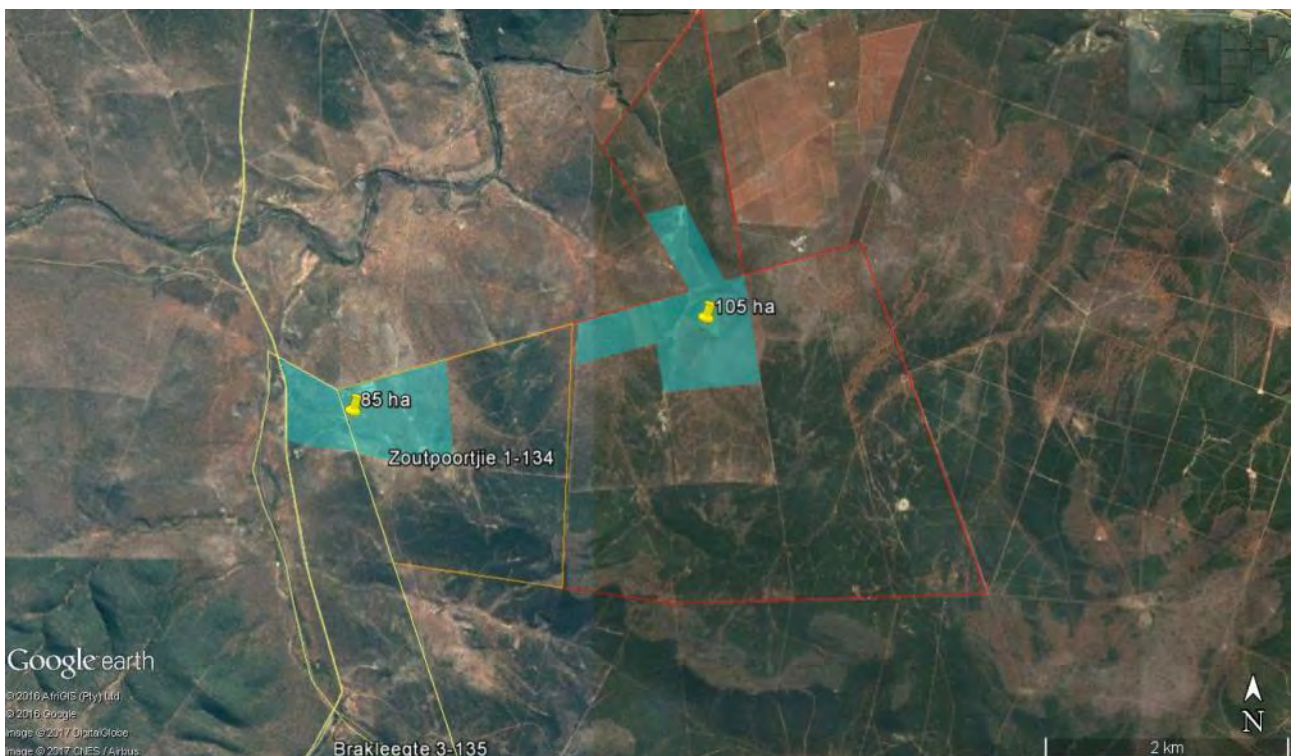


Figure 10: Alternative 2

This alternative is not considered as preferred for the following reasons:

- Even though this option is viable, from a financial perspective this is not best suited, as the low carrying capacity of the fields in the area, would result in a very small scale farming operation.
- Existing workers would lose job opportunities and existing jobs.

This alternative is therefore not deemed preferred and not better suited than that of Alternative 1.

ALTERNATIVE 3: NO-GO OPTION

This is not seen as preferred for the following reason:

- The current agricultural activities on the property are not being utilised to full potential. For this to take place additional agricultural areas would have to be established.
- From a botanical perspective the No Go alternative would lead to no further development of areas on the farms. The natural veld would remain as it is and there would be minimal change over time but with some low-level impacts due to human activity. The result would be a Very Low Negative impact.
- No social upliftment of existing workers and no additional job opportunities.

Therefore, this alternative is not seen as preferred as the expansion of agricultural activities will contribute to the agricultural potential of the property and if this does not take place the expansion of the farm to its full potential cannot take place. No upliftment and economical contribution can take place.

Alternatives that will be considered

Following from section 4.1 it is clear that Alternative 1 addresses the key concerns raised.

In conclusion, taking into consideration that Alternative 2 is not viable from a design, or vegetation perspective and the fact that Alternative 1 took into consideration inputs from relevant specialists and inputs during public participation, this development of alternative 1 is seen as preferred.

Alternative 1 as the preferred option and Alternative 3 the No-go Option, will be brought forward into the EIA phase of the development.

Public participation included the following:

Public participation included the following:

- **Registration and advertisement**

An advertisement will be placed in the Herald on the 19 June 2017. This advertisement serves as a notice for registration as an Interested and Affected Parties and to provide comment on the dSR as part of the public participation. The registration/comment period will be from Wednesday 21 June 2017 until Friday 21 July 2017.

- **Notice Board**

Notice Boards will be displayed at the entrance of the farm from Wednesday 21 June 2017 (See section 11.1.3).

- **Information and reporting for formal process**

A notice that included the Executive Summary and draft Scoping Report will be made available and distributed by registered post to all registered I&APs and neighbours for the 30-day commenting period, from Wednesday 21 June 2017 until Friday 21 July 2017. The notice also informs all I&AP's of the availability of the Scoping Report which could be obtained from the EAP. Comments received will be included in the final Scoping Report. The actual comments received on the Executive Summary and Scoping Report, as part of the public participation, will be included in the final Scoping Report as shown in section 11.1.5. Digital copies will be made available on the website www.pbpscon.co.za and distributed to all I&AP's.

Hard copies of the report will also sent to the following Authorities: DEDEAT, Department of Water and Sanitation, Department of Agriculture, Eastern Cape Provincial Heritage Resource Agency and SAHRA, Sundays River Valley Municipality, Cacadu District Municipality and Addo BSP representative.

- **I&AP database**

The I&AP database was developed from registered and listed I&APs shown in section 11.1.1. The database will be updated to include new I&AP's that have submitted comments on the Scoping Report.

All comments received will be addressed in the Comments and Response sheet, in Appendix 11.1.6.

Issues identified for EIA phase:

The purpose of scoping is to identify issues for further study in the EIA. A summary of the main identified issues is shown in Table 1. Two types of reports will be compiled.

1. A report on a specific technical subject – identified by shading and an X under “Reports” in Table 7.
2. Final specialist environmental impact reports, included in Scoping to be further assessed in the EIA phase, as outlined in Table 7.

Table 1: Identified issues, EIA studies and reports

Main issues identified	Comments addressed in section 3 following availability of Scoping Report	Reports	Final EIA studies
Heritage/Archaeology			X
Socio-Economic		X	
Vegetation			X – if deemed necessary by DEDEAT
EMP		X	
WULA		X	

Conclusion:

Taking into account that the purpose of scoping is “*must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process*” it can be concluded that the process has been successful because a number of issues have been identified for further study and a preferred alternative has been identified.

The proposed development has been identified and the layout designed according to the findings of the baseline studies to ensure minimal impact on the environment. Alternative 1 addresses the key concerns concerning design and the inputs from the specialists through the following:

- No constraints were identified from a botanical perspective that would prevent the agricultural development from proceeding as long as suitable mitigation is implemented.
- No significant impact expected on heritage/archaeology, dependant on the outcome of the application lodged to ECPHRA/SAHRA.
- Determined the best suitable alternative through assessing the impacts on the environment, preferred alternative 1 was determined.
- The farm can be utilised to its full agricultural potential.
- It will also result in the social upliftment of the existing workers and create additional job opportunities.
- Financially contribute to the local and national market.

The detailed impacts and mitigation measures for Alternative 1 can, however, only be investigated during the EIA phase as per the Plan of Study for EIA as in section 11.5.
Note that the “**do nothing option**”, has been investigated as Alternative 3 and when taking into consideration that the current agricultural potential of the property is not utilising to its full potential, thus keeping the site as is, is not deemed as preferred.

Thus Alternative 1 and Alternative 3: No-Go Option will be brought forward and investigated in the EIA Phase

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List of abbreviations

CA	Competent Authority
DENC:NC	Department of Environment and Nature Conservation: Northern Cape
DEAT	Department of Environmental Affairs and Tourism
dSR	Draft Scoping Report
fSR	Final Scoping Report
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment and the process to be followed in terms of the National Environmental Management Act, Act 107 of 1998
EIR	Environmental Impact Report
EMF	Environmental Management Framework
EMP	Environmental Management Programme
I&AP	Interested and Affected Party
IAIASa	International Association for Impact Assessment for South Africa
NEMA	National Environmental Management Act, Act 107 of 1998
NID	Notice of Intent to Develop
PoSfEIA	Plan of Study for EIA
ROD	Record of Decision
SDF	Spatial Development Framework
SR	Scoping Report
TOR	Terms of Reference

1 Introduction

1.1 Contents of the scoping report

1.1.1 Report content tracking

Table 1: Report tracking

Requirements of process	Status
Objectives of Scoping report	
(a) identify the relevant policies and legislation relevant to the activity;	See section 1 and sections 2.2 and 3.
(b) motivate the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;	See section 4.
(c) identify and confirm the preferred activity and technology alternative through an impact and risk assessment and ranking process;	See section 6.
(d) identify and confirm the preferred site, through a detailed site selection process, which includes an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified alternatives focusing on the geographical, physical, biological, social, economic, and cultural aspects of the environment;	See sections 5 and 6.
(e) identify the key issues to be addressed in the assessment phase;	See section 9.
(f) agree on the level of assessment to be undertaken, including the methodology to be applied, the expertise required as well as the extent of further consultation to be undertaken to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site; and	See section 9.
(g) identify suitable measures to avoid, manage or mitigate identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	See section 9.
Content of Scoping Report	
A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include-	
(a) details of- (i) the EAP who prepared the report; and (ii) the expertise of the EAP, including a curriculum vitae;	See section 1.3.
(b) the location of the activity, including- (i) the 21 digit Surveyor General code of each cadastral land parcel; (ii) where available, the physical address and farm name; (iii) where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;	See section 1.2.
(c) a plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is- (i) a linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or (ii) on land where the property has not been defined, the coordinates within which the activity is to be undertaken;	See section 2.
(d) a description of the scope of the proposed activity, including-	See section 2.

<p>(i) all listed and specified activities triggered; (ii) a description of the activities to be undertaken, including associated structures and infrastructure;</p>	
<p>(e) a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;</p>	See section 3.
<p>(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;</p>	See section 4.
<p>(h) a full description of the process followed to reach the proposed preferred activity, site and location within the site, including - (i) details of all the alternatives considered; (ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; (iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them; (iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; (v) the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts- (aa) can be reversed; (bb) may cause irreplaceable loss of resources; and (cc) can be avoided, managed or mitigated; (vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives; (vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects; (viii) the possible mitigation measures that could be applied and level of residual risk; (ix) the outcome of the site selection matrix; (x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and (xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;</p>	See sections 5, 6, 7, 8 and 10.
<p>(i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity; (ii) a description of the aspects to be assessed as part of the environmental impact assessment process; (iii) aspects to be assessed by specialists; (iv) a description of the proposed method of assessing the environmental aspects, including a description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists; (v) a description of the proposed method of assessing duration and significance; (vi) an indication of the stages at which the competent authority will be consulted;</p>	See sections 6, 7, 8, 9 and 11.5.

(vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and (viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process; (ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.	
j) an undertaking under oath or affirmation by the EAP in relation to- (i) the correctness of the information provided in the report; (ii) the inclusion of comments and inputs from stakeholders and interested and affected parties; and (iii) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;	See sections 12 and 11.1.
(k) an undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;	See section 11.5.
(l) where applicable, any specific information required by the competent authority; and	See section 12.
(m) any other matter required in terms of section 24(4) (a) and (b) of the Act.	See section 12

1.1.2 Report lay-out

Section 2 of the report describes the scope of the proposed activities and section 3 provides policies and legislative context. Section 4 provides the needs and desirability. Section 5 shows a description of the environment and baseline information. Section 6 lists the alternatives with identified issues in section 7. Section 8 provides the public participation undertaken and Section 9 shows the details of the EIA phase. The conclusions are in section 10. The appendices are in section 11. Section 12 provides other additional information.

The EIA process is illustrated in section 3.1. Currently the project is in the Scoping phase and the EIA phase will follow after acceptance of the Scoping Report by Department of Economic Development, Environmental Affairs and Tourism, Eastern Cape.

1.2 Property Location and Description

The proposed properties on which the agricultural development and associated infrastructure will take place are situated on Farm 629, Portion 1 of Farm 134 and Portion 3 of Farm 135, Kirkwood. The farms are situated 11km southeast of Kirkwood and are accessed by the road running between the R336 and R75 see Figure 1. The site lies south of the R336 and Northeast of the R75. The property is currently zoned Agriculture.

The owner of the properties is Ginkel Venter Familie Trust and PBPS was appointed as the independent consultant to undertake the EIA process.

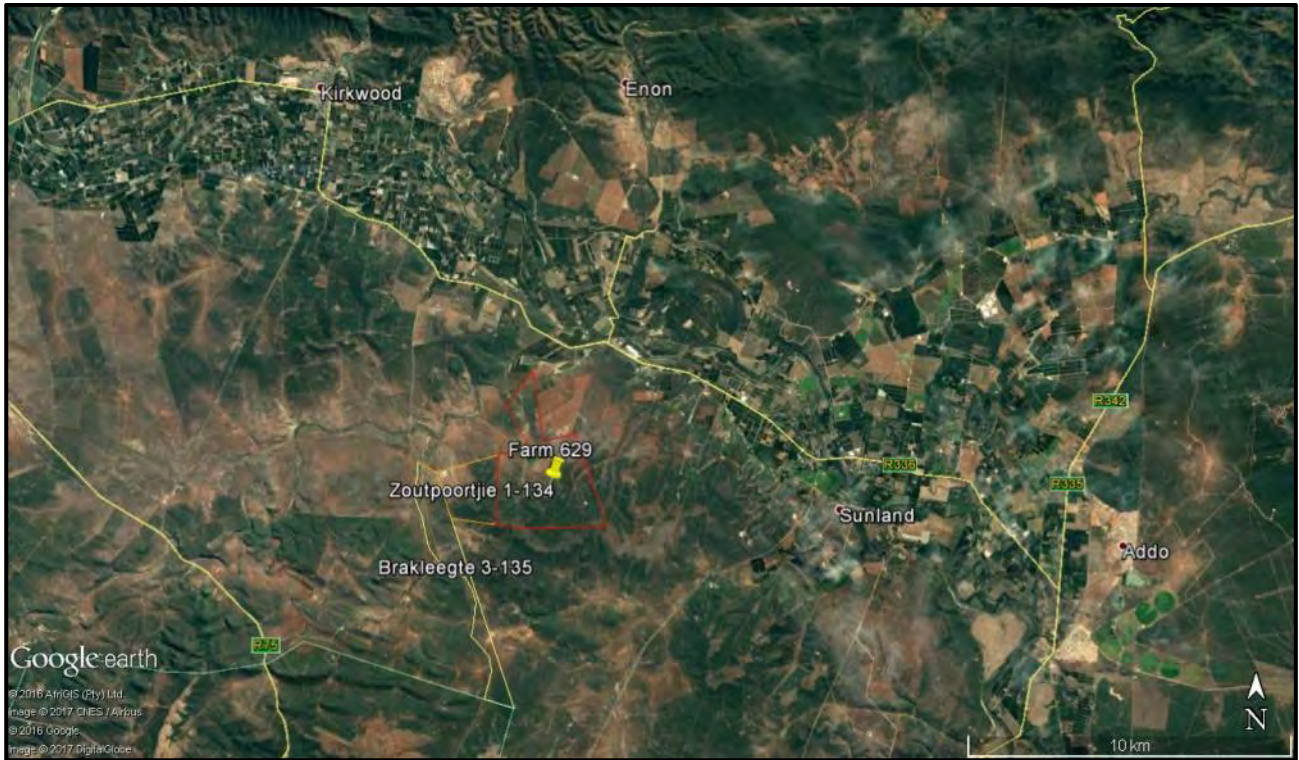


Figure 1: Locality

1.2.1 SG 21 Digit Codes

C	0	7	6	0	0	0	0	0	0	0	0	0	6	2	9	0	0	0	0	0
C	0	7	6	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	1
C	0	7	6	0	0	0	0	0	0	0	0	0	1	3	5	0	0	0	0	3

1.3 EAP experience

The requirements for a Scoping Report state that the details of the EAP and relevant experience for scoping procedures must be provided:

1.3.1 Details of the EAP

Helene Botha

Pieter Badenhorst Professional Services

P. O. Box 1058

Wellington

7654

Cell: 076 800 4959

Fax: 0866721916

Website: www.pbpscon.co.za

1.3.2 Relevant Experience

Pieter Badenhorst

The consultant has more than 42 years experience in project management and report writing. He worked at the SIR in environmental and estuarine management for 16 years. During that time, he was part of the team that developed coastal management guidelines; the first process for EIA's and undertook numerous environmental studies for DEAT in collaboration with a team of ecologists. The past couple of years he has worked mainly in environmental control and environmental impact assessments and has completed EIAs for many projects. He has also attended an EIA peer review on a major development for DEAT and is a member of IAIAAsa.

The practitioner has attended or organised many meetings/workshops/open days to identify issues for similar projects at the CSIR; Blue Flag for DEAT as well as other DEAT projects. The Blue Flag and other projects required interaction with large groups of stakeholders.

Helene Botha

The consultant has 2 years experience in project management and report writing. She completed her BSc degree and gained an Honours Degree in Zoology from the University of the Free State in Bloemfontein. She is currently completing her Masters in Environmental Management from the North West University in Potchefstroom. She has been working with Pieter Badenhorst for the last two years working on environmental impact assessments.

CV attached in Section 11.

1.3.3 Applicant details

The applicant's details are as follows:

Ginkel Venter Familie Trust

Contact person: G. Venter

P.O. Box 56

Uitenhage

Eastern Cape

6230

Email: accounts@uss.co.za OR ginkel@uss.co.za

Tel: 041 922 8060

Fax: 041 992 5923

2 Description of scope of proposed activity

2.1 Project description

Proposed development:

The proposed development is to establish agricultural areas for the cultivation of cash crops on areas with indigenous vegetation, previously disturbed by agricultural activities. All proposed cultivation areas have existing access and infrastructure.

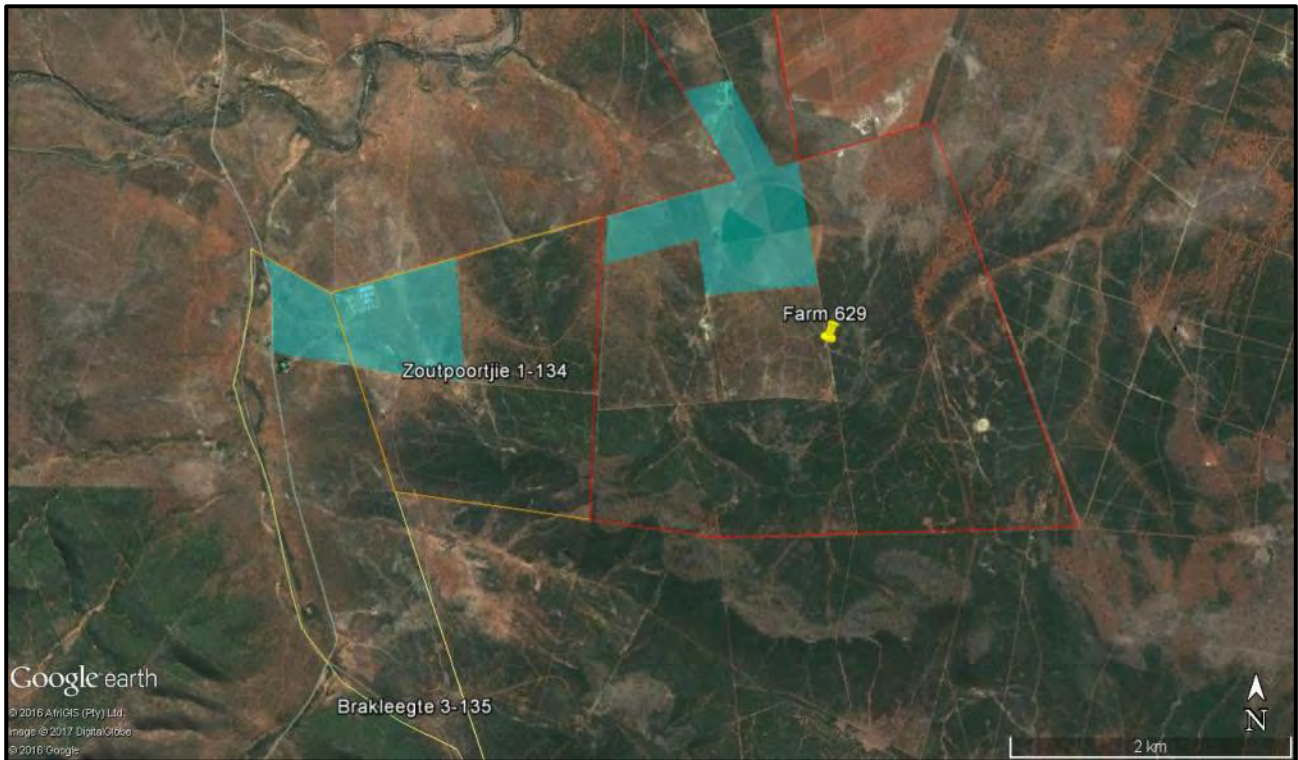


Figure 2: Proposed Agricultural areas.

As per the above Figure 2 the proposed development is for the following:

2. Transformation of approximately 190 ha of indigenous vegetation to cultivation areas for cash crops.

The following is a more detailed summary of the proposed development (All design layouts also included in 11.4.2 as A3's):

2. New cultivation areas:

It is proposed to clear approximately 190 ha of vegetation for the establishment of cultivation areas. Some of these sections have been previously cultivated, however the vegetation has re-established on site, see Figure 3. The area was disturbed prior to the applicant purchasing the property and Google Earth Imagery indicated that it has been disturbed since 2004. Two blocks were designed on the property, see Figure 4.

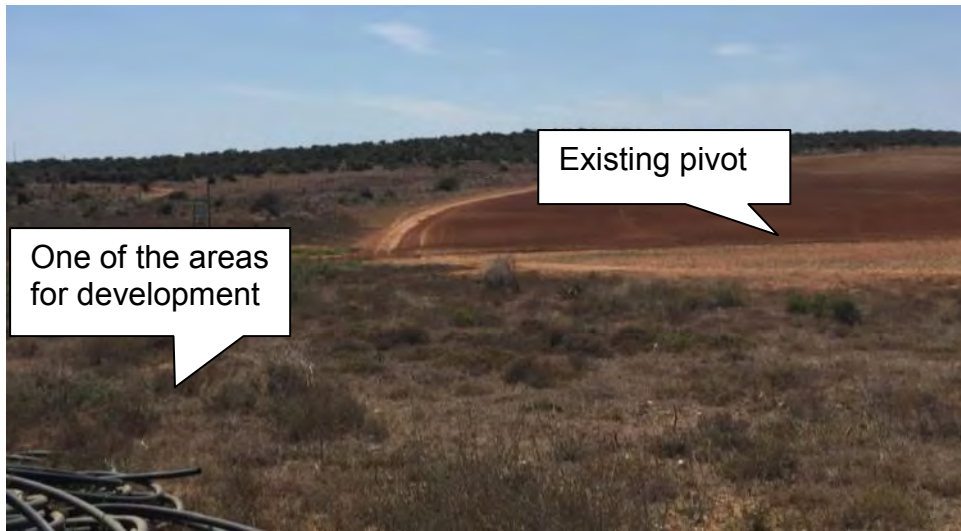


Figure 3: Proposed cultivation site adjacent to existing pivot

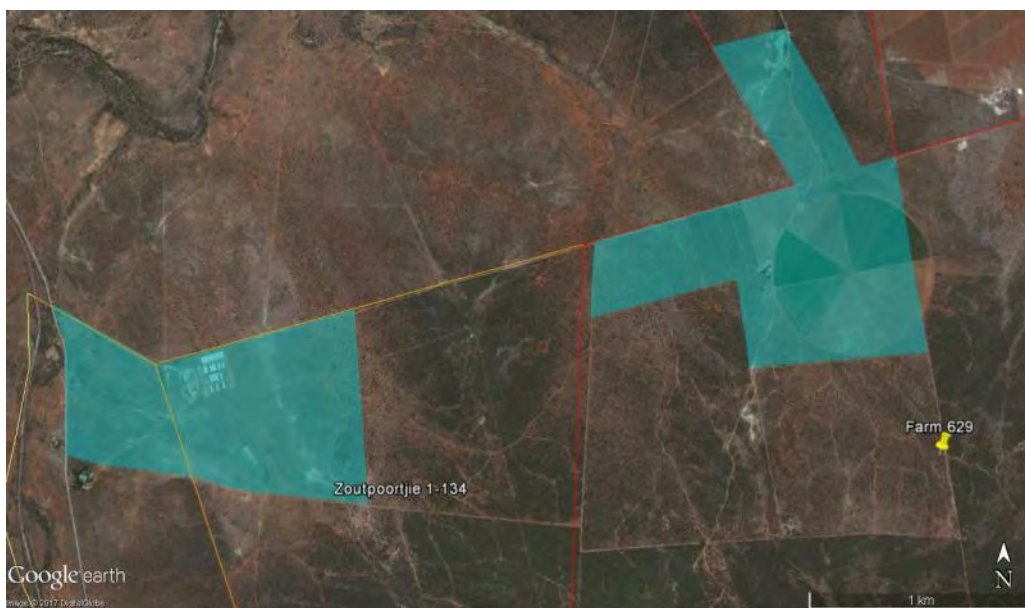


Figure 4: Block layout

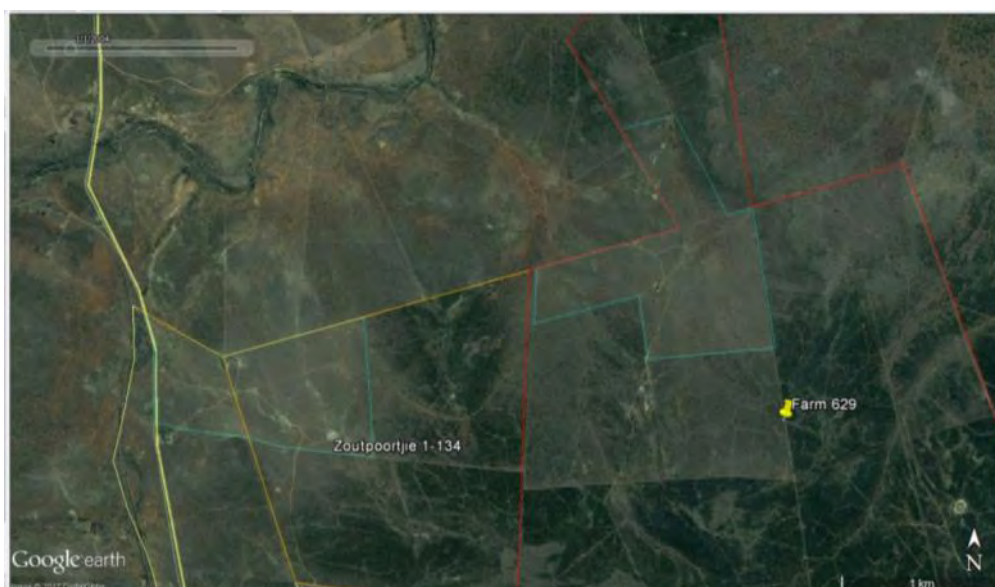


Figure 5: Google Earth evidence indicating the proposed sites have been disturbed since 2004

2.2 Statutory requirements

According to National Environmental Management Act, 1998 (Act No. 107 of 1998), Environmental Impact Assessment Regulations, December 2014.

Highlighted sections are the applicable listed activities.

Table 2: Listed activities

Government Notice R983 Activity No(s):	Describe the relevant Basic Assessment Activity (ies) in writing as per Listing Notice 1 (GN No. R983) as amended 7 April 2017 in GN No. 327	Describe the portion of the development as per the project description that relates to the applicable listed activity
Government Notice R985 Activity No(s):	Describe the relevant Basic Assessment Activity (ies) in writing as per Listing Notice 3 (GN No. R985) as amended 7 April 2017 in GN No. 324	Describe the portion of the development as per the project description that relates to the applicable listed activity
12	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>i. Western Cape</p> <p>i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>ii. Within critical biodiversity areas identified in bioregional plans;</p> <p>iii. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas;</p> <p>iv. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an</p>	<p>A portion of the proposed area falls within a CBA. The major extent is within an Ecological Support Area</p>

	<p>equivalent zoning; or</p> <p>v. On land designated for protection or conservation purposes in an Environmental Management Framework adopted in the prescribed manner, or a Spatial Development Framework adopted by the MEC or Minister.</p>	
Government Notice R984 Activity No(s):	Describe the relevant Scoping and EIA Activity (ies) in writing as per Listing Notice 2 (GN No. R984) as amended 7 April 2017 in GN No. 325	Describe the portion of the development as per the project description that relates to the applicable listed activity
15	<p>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for—</p> <p>(i) the undertaking of a linear activity; or</p> <p>(ii) Maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>For the clearance of areas in total more than 20 hectares for the development of agricultural areas.</p>
<p>Please note: Only those activities for which the applicant applies will be considered for authorisation. The onus is on the applicant to ensure that all the applicable listed activities are included in the application. Failure to do so may invalidate the application.</p>		

3 Policies and legislative context

3.1 Environmental regulations and acts

3.1.1 Scoping regulations

REGULATIONS IN TERMS OF CHAPTER 4 OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998

Environmental Impact Assessment Regulations, 2014

The Minister of Environmental Affairs and Tourism has in terms of section 21 and 22 read with Appendix 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), Environmental Impact Assessment Regulations, 2014 made the regulations set out in the schedule hereto.

The following is an extract from the above document and explains the Scoping Process and content of a Scoping Report. The number refers to the section of the regulations.

Steps to be taken after submission of application

21. (1) *If S&EIR must be applied to an application, the applicant must, within 44 days of receipt of the application by the competent authority, submit to the competent authority a scoping report which has been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority.*
- (2) *Subject to regulation 46, and if the findings of the scoping report is still valid and the environmental context has not changed, the submission of a scoping report as contemplated in sub regulation (1) need not be complied with-*
 - (a) *in cases where a scoping report was accepted as part of a previous application for environmental authorisation and the application has lapsed or was refused because of insufficient information;*
 - (b) *on condition that regulation 16 is complied with and that such application is accompanied by proof that registered interested and affected parties, who participated in the public participation process conducted as part of the previous application, have been notified of this intended resubmission of the application prior to submission of such application;*
 - (c) *if the application contemplated in paragraph (b) is submitted by the same applicant for the same development, as applied for and lapsed or refused as contemplated in paragraph (a); and*
 - (d) *if an environmental impact assessment report inclusive of specialist reports and an EMPr, which must have been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority, is submitted within a period of two years from the date of the acceptance of the scoping report contemplated in paragraph (a).*
- (3) *A scoping report must contain all information set out in Appendix 2 to these Regulations or comply with a protocol or minimum information requirements relevant to the application as identified and Gazetted by the Minister in a government notice.*

APPENDIX 2

Content of the scoping report

2. A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include-
- (a) Details of-
 - (i) The EAP who prepared the report; and (ii) the expertise of the EAP, including a curriculum vitae;
 - (b) The location of the activity, including-
 - (i) The 21-digit Surveyor General code of each cadastral land parcel;
 - (ii) Where available, the physical address and farm name;
 - (iii) Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties;
 - (c) A plan which locates the proposed activity or activities applied for at an appropriate scale, or, if it is-
 - (i) A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or
 - (ii) On land where the property has not been defined, the coordinates within which the activity is to be undertaken;
 - (d) A description of the scope of the proposed activity, including-
 - (i) All listed and specified activities triggered;
 - (ii) A description of the activities to be undertaken, including associated structures and infrastructure;
 - (e) a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process;
 - (f) A motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location;
 - (g) A full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including-
 - (i) Details of all the alternatives considered;
 - (ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;
 - (iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;
 - (iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;
 - (v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts-
 - (aa) can be reversed;
 - (bb) may cause irreplaceable loss of resources; and
 - (cc) can be avoided, managed, or mitigated;

- (vi) the methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;
 - (vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;
 - (viii) the possible mitigation measures that could be applied and level of residual risk;
 - (ix) the outcome of the site selection matrix;
 - (x) if no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such and
 - (xi) a concluding statement indicating the preferred alternatives, including preferred location of the activity;
- (h) a plan of study for undertaking the environmental impact assessment process to be undertaken, including-
- (i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;
 - (ii) a description of the aspects to be assessed as part of the environmental impact assessment process;
 - (iii) aspects to be assessed by specialists;
 - (iv) a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;
 - (v) a description of the proposed method of assessing duration and significance;
 - (vi) an indication of the stages at which the competent authority will be consulted;
 - (vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and
 - (viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;
 - (ix) identify suitable measures to avoid, reverse, mitigate, or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.
- (i) an undertaking under oath or affirmation by the EAP in relation to-
- (i) the correctness of the information provided in the report;
 - (ii) the inclusion of comments and inputs from stakeholders and interested and affected parties; and
 - (iii) any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested or affected parties;
- (j) an undertaking under oath or affirmation by the EAP in relation to the level of agreement between the EAP and interested and affected parties on the plan of study for undertaking the environmental impact assessment;
- (k) where applicable, any specific information required by the competent authority; and
- (l) any other matter required in terms of section 24(4) (a) and (b) of the Act.

Consideration of scoping report

22. The competent authority must, within 43 days of receipt of a scoping report-

- (a) accept the scoping report, with or without conditions, and advise the applicant to proceed or continue with the tasks contemplated in the plan of study for environmental impact assessment; or

(b) refuse environmental authorisation if the proposed activity is in conflict with a prohibition contained in legislation; or if the scoping report does not substantially comply with Appendix 2 to these Regulations and the applicant is unwilling or unable to ensure compliance with these requirements within the prescribed timeframe.

3.1.2 Environmental process

The environmental process is illustrated graphically in Figure 6. At this stage, the current process is as outlined in the Figure 6 below.

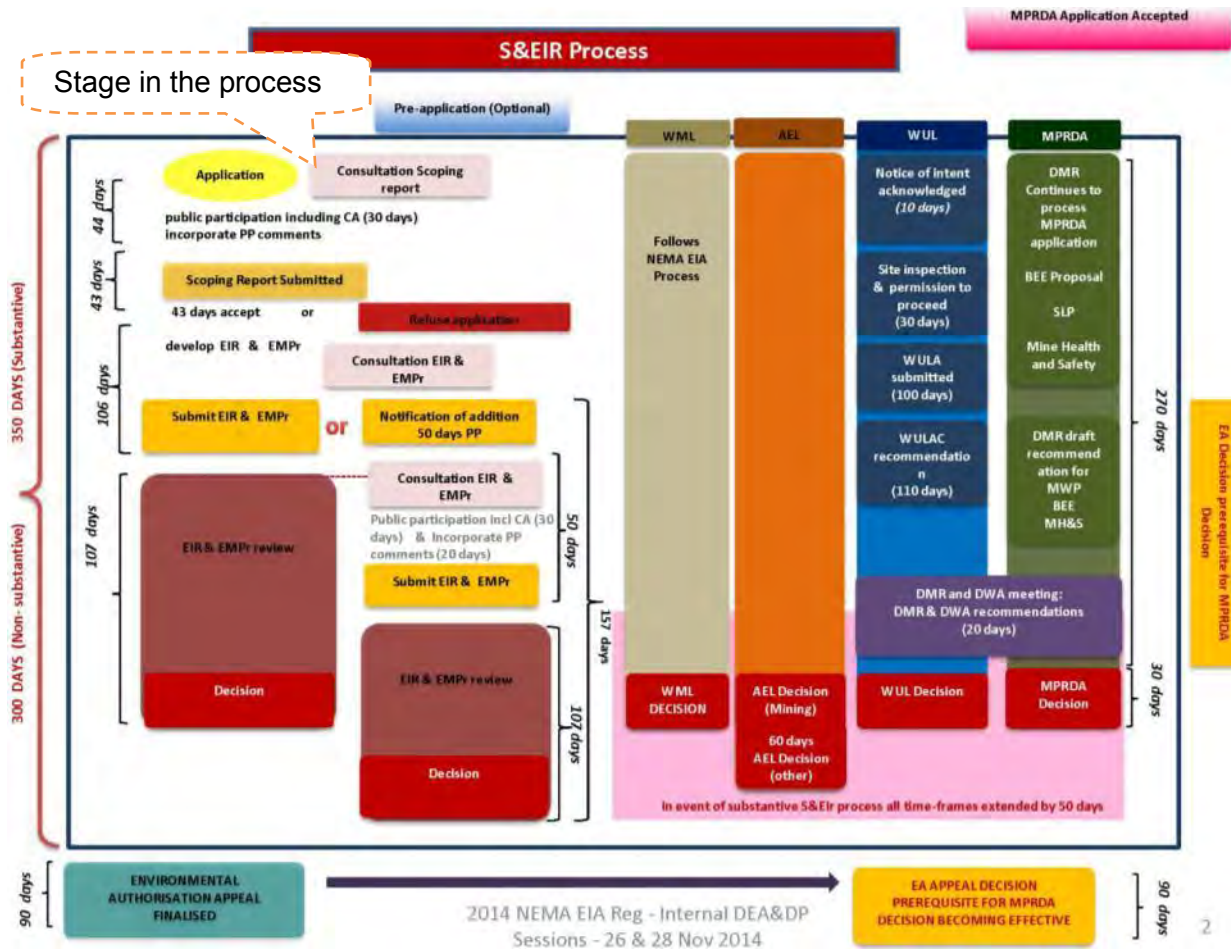


Figure 6: Environmental application procedure

3.1.3 NEMA

The purpose of NEMA (Chapter 1) is outlined below:

Purpose of Regulations

2. The purpose of these Regulations is to regulate the procedure and criteria as contemplated in Chapter 5 of the Act relating to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for environmental authorisations for the commencement of activities, subjected to environmental impact assessment, in order to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts, and for matters pertaining thereto.

3.2 Other applicable legislation

3.2.1 National Water Act, 1998.

The purpose of the National Water Act is to provide a framework for the equitable allocation and sustainable management of water resources. Both surface and groundwater sources are redefined by the Act as national resources which cannot be owned by any individual, and rights to which are not automatically coupled to land rights, but for which prospective users must apply for authorisation and register as users. The National Water Act also provides for measures to prevent, control, and remedy the pollution of surface and groundwater sources.

The developer makes an application for a license in terms of the National Water Act, 1998, Ginkel Venter Familie Trust for the transfer water rights and the water usages is summarised as the follows:

(a) taking water from a water resource;

Transfer of water rights

All the necessary information will be included in the WULA as part of the EIA phase of the application. An independent attorney has been appointed to undertake this process.

3.2.2 Heritage Resources Act, 1999.

The National Heritage Resources Act (NHRA) No. 25 of 1999 protects a variety of heritage resources as follows:

- Section 34: structures older than 60 years;
- Section 35: palaeontological, prehistoric and historical material (including ruins) more than 100 years old;
- Section 36: graves and human remains older than 60 years and located outside of a formal cemetery administered by a local authority; and
- Section 37: public monuments and memorials.

Following Section 2, the definitions applicable to the above protections are as follows:

- Structures: “any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith”;
- Palaeontological material: “any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace”;
- Archaeological material: a) “material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures”; b) “rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation”; c) “wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation”; and

- d) “features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found”;
- Grave: “means a place of interment and includes the contents, headstone or other marker of such a place and any other structure on or associated with such place”; and
- Public monuments and memorials: “all monuments and memorials a) “erected on land belonging to any branch of central, provincial or local government, or on land belonging to any organisation funded by or established in terms of the legislation of such a branch of government”; or b) “which were paid for by public subscription, government funds, or a public-spirited or military organisation, and are on land belonging to any private individual.”

While landscapes with cultural significance do not have a dedicated Section in the NHRA, they are protected under the definition of the National Estate (Section 3). Section 3(2) (c) and (d) list “historical settlements and townscapes” and “landscapes and natural features of cultural significance” as part of the National Estate. Furthermore, Section 3(3) describes the reasons a place or object may have cultural heritage value.

Section 38 (2a) states that if there is reason to believe that heritage resources will be affected then an impact assessment report must be submitted.

For this proposed development the following is applicable:

1. Legal requirements

In terms of Section 38 (1) (c) (iii) of the National Heritage Resources Act 1999 (Act 25 of 1999), a Heritage Impact Assessment (HIA) of the proposed project is required if the footprint area of the proposed development is more than 5000m² in extent.

2. Aim of the AIA

The overall purpose of the AIA is to assess the sensitivity of archaeological resources in the affected areas, to determine the potential impacts on such resources, and to avoid and/or minimize such impacts by means of management and/or mitigation measures.

The significance of archaeological resources was assessed in terms of their content and context. Attributes considered in determining significance include artefact and/or ecofact types, rarity of finds, exceptional items, organic preservation, potential for future research, density of finds and the context in which archaeological traces occur

Under the National Environmental Management Act (No. 107 of 1998; NEMA), as amended, the project is subject to an EIA. Eastern Cape Heritage Resource Agency and the South African Heritage Resources Agency (SAHRA for archaeology and palaeontology) are required to provide comment on the proposed project in order to facilitate final decision making by the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism.

3.2.3 Other policies, plans or guidelines

Other policies, municipal plans or guideline documents that is relevant to the project:

- Guidelines published in terms of NEMA EIA Regulations
- Conservation of Agricultural Resources Act (Act 43 of 1983)
- Eastern Cape Biodiversity Conservation Plan
- Addo Biodiversity Sector Plan

4 Needs and Desirability

As stated in the NEMA 2014 Guidelines on Needs and Desirability “...the need for and desirability of an proposed activity must specifically and explicitly be addressed throughout the EIA process (screening, "scoping", and assessment) when dealing with individual impacts and specifically in the overall impact summary by taking into account the answers to inter alia the following questions...”

“It is therefore assume that for Scoping Phase, Needs and Desirability was adequately addressed within the table below which includes all the questions outlined in the Guidelines.

Table 3: Questions and answers pertaining to Needs and Desirability.

Question	Answer
<p>1. How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?</p> <p>1.1. How were the following ecological integrity considerations taken into account:</p> <p>1.1.1.Threatened Ecosystems,</p> <p>1.1.2.Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure,</p> <p>1.1.3.Critical Biodiversity Areas ("CBAs") and Ecological Support Areas ("ESAs"),</p> <p>1.1.4.Conservation targets,</p> <p>1.1.5. Ecological drivers of the ecosystem,</p> <p>1.1.6.Environmental Management Framework,</p> <p>1.1.7.Spatial Development Framework, and</p> <p>1.1.8. Global and international responsibilities relating to the environment (e.g. RAMSAR sites, Climate Change, etc.).</p>	<p>The proposed development will not significantly impact on the ecological integrity of the area. Although the proposed development of the agricultural areas will be in a CBA and ESA. The farms are located in an area classified as a CBA and ESA.</p> <p>The expected impact on the Sundays Thicket and Albany Alluvial Vegetation would be Low Negative without mitigation and Very Low Negative with mitigation.</p>
<p>1.2. How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<p>These areas were chosen due to their location within property. All related infrastructures for electricity and water provisions are in place and thus this will reduce the impact on the ecosystem. The areas were previously disturbed with evidence since 2004. Caution will be taken to not detrimentally impact on the ecosystem or biological diversity.</p>
<p>1.3. How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<p>This development will not pollute or degrade the biophysical environment. Care will be taken during construction to prevent any pollution or degradation.</p>
<p>1.4. What waste will be generated by this</p>	<p>It is an agricultural activity and no waste</p>

<p>development? What measures were explored to firstly avoid waste and where waste could not be avoided altogether, what measures were explored to minimise, reuse, and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?</p>	<p>will be generated.</p>
<p>1.5. How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<p>The planned development is situated within a purely agricultural area with no other land uses in close proximity. The proposed development will therefore have no impact on any of the surrounding land uses in the area.</p> <p>A Heritage Impact Assessment will be conducted as part of the EIA phase.</p>
<p>1.6. How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	<p>The only non-renewable natural resource to be used is water. This resource will be used for irrigational purposes and therefore contributes to the economy. It is therefore not a negative impact, as it will be used sparingly/water wise to its full potential. Note existing water rights will be used for the establishment of these areas. A Water Use License Application was submitted to transfer the rights from other properties owned by the applicant.</p> <p>A small amount of electricity will be used for irrigation within the existing system. This will however be further assessed and if an application to ESKOM is necessary will be included as part of the EIA phase.</p>
<p>1.7. How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds?</p> <p>What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?</p> <p>1.7.1. Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life)</p>	<p>The proposed development of expansion of agricultural activities in itself is a renewable resource. Therefore, this development will have a positive impact on the resource and will not negatively impact or jeopardise the integrity of the existing resources. The proposed development will make use of an existing resource (water) however; it will reduce the resource dependency by making use of water wise technology. It is also a great use of the resource as it will provide a new resource (food) and contribute to the economy as well as food security.</p>

<p>1.7.2. Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources for the proposed development alternative?)</p> <p>1.7.3. Do the proposed location, type, and scale of development promote a reduced dependency on resources?</p>	
<p>1.8. How were a risk-averse and cautious approach applied in terms of ecological impacts:</p> <p>1.8.1. What are the limits of current knowledge (note: the gaps, uncertainties, and assumptions must be clearly stated)?</p> <p>1.8.2. What is the level of risk associated with the limits of current knowledge?</p> <p>1.8.3. Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</p>	<p><u>Gaps, uncertainties and assumptions:</u></p> <p>This will be investigated further in the EIA phase</p>
<p>1.9. How will the ecological impacts resulting from this development impact on people's environmental right in terms following:</p> <p>1.9.1. Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</p> <p>1.9.2. Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance?</p>	<p>The proposed development will not impact on the rights of other people.</p> <p>The proposed development might have a small impact on air quality as during construction of the agricultural areas dust may be generated. This will, however, be mitigated.</p> <p>Visually there is no impact on surrounding landowners because the activity is similar to neighbouring developments.</p> <p>Positive impacts can be access to renewable resources such as agricultural lands, food, socio-economically providing additional job opportunities.</p>
<p>1.10. Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?</p>	<p>The proposed development will not negatively impact on livelihoods It might, however, provide additional job opportunities for local workers. The development will increase the chances of permanent employment opportunities being secured for current employees.</p>
<p>1.11. Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/targets/considerations of the area?</p>	<p>Overall, the proposed development will have a low negative impact on vegetation after mitigation. The impact significance of the proposed development on important archaeological heritage is predicted to be. The development will have a positive impact from a socio-economic perspective through job creations and contributions to the economy.</p>

<p>1.12. Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the "best practicable environmental option" in terms of ecological considerations?</p>	<p>The preferred alternative has a low negative impact on vegetation, predicted low impact negative on heritage/archaeological indicators and has a positive impact from a socio-economic perspective through job creations and contributions to the economy, best location, most accessible to existing infrastructure and best technology alternative.</p>
<p>1.13. Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope, and nature of the project in relation to its location and existing and other planned developments in the area?</p>	<p>Positive economic impact with the proposed development cash crop cultivation.</p> <p>Impact due to additional water resource; this is, however, an existing use, positive impact due to enhancement of production of agricultural produce.</p>
<p>2.1. What is the socio-economic context of the area, based on, amongst other considerations, the following considerations:</p> <p>2.1.1. The IDP (and its sector plans' vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area,</p> <p>2.1.2. Spatial priorities and desired spatial patterns (e.g. need for integrated or segregated communities, need to upgrade informal settlements, need for densification, etc.),</p> <p>2.1.3. Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and</p> <p>2.1.4. Municipal Economic Development Strategy ("LED Strategy").</p>	<p>The farms as part of Ginkel Venter Familie Trust, is a commercial agricultural (farming) unit in the area and is being surrounded by other similar farms and communities. The proposed development does not fall within an urban area, however, does fall within the boundaries of the Sundays River Valley Municipality.</p> <p>The closest communities are that of Kirkwood and Addo. The farm is situated approximately 12km outside of Kirkwood. People working on the farm will be sourced locally. Portions of this farm will be developed intensively as indicated in this application but some large areas will at present remain undeveloped.</p> <p>The proposed development will contribute positively to the local economy and the provision of job opportunities in the region and the Eastern Cape Province.</p> <p>The planned development is situated within a purely agricultural area with no other land uses in close proximity. The proposed development will therefore have no impact on any surrounding land uses in the area.</p>
<p>2.2. Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?</p> <p>2.2.1. Will the development complement the local socio-economic initiatives (such as local economic development (LED) initiatives), or skills development programs?</p>	<p>It is envisaged that the Applicant will need to create some new permanent and a number of new seasonal employee positions in the near future should the development be approved.</p> <p>As mentioned before, cash crop production can be very labour-intensive, even more so if packed as well. It creates</p>

	<p>around 4 new employment positions per hectare if also packed on the farm.</p> <p>The new development will therefore create an immediate need to appoint more workers and supervisors.</p> <p>The new development will lead to the expansion of the farming operation, and will create a demand for new staff and new skills, eg.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Skilled agricultural labourers <input type="checkbox"/> Specific knowledge of crop production will be needed <input type="checkbox"/> Specific knowledge of packing will be needed <input type="checkbox"/> Support staff will be needed: Admin, forklift drivers, tractor operators and Code 14 drivers. <p>Preference will be given to black/coloured people for these positions, and more specific black/coloured women where possible.</p> <p>Existing employees with experience on the farm, plus the potential to be leaders, will in the first place be identified for new supervisory positions.</p>
<p>2.3. How will this development address the specific physical, psychological, developmental, cultural, and social needs and interests of the relevant communities?</p>	<p>The proposed development will greatly and positively impact on skills development.</p> <p>In a rural area such as this with a high unemployment rate, any new employment positions have a huge impact on the immediate and extended families of such new workers. Add then also the impact of more people with proper housing, undergoing skills training and going to church, sport, etc. and children going to school, to understand the positive impact on this rural community. Even seasonal work opportunities has the advantage of extra income plus the opportunity to gain skills that can in future be used to gain permanent employment on the farm or elsewhere.</p> <p>Not only are the new employment opportunities important, but also the fact that:</p> <ol style="list-style-type: none"> 1. Existing jobs can be secured: The development will directly secure existing and new job opportunities. 2. The development will create the

opportunity to plant different crops and varieties that can spread the preparation, harvesting and packing seasons over longer periods. This will support the entity in efforts to convert as much as possible seasonal job opportunities into permanent job opportunities. Especially black females from the farm and neighbouring towns will benefit here. The positive impact on their lives will even be more as some of them will now also be promoted to supervisor level to help manage the increased production as well as the increase in value-adding volume.

3. The increase in production of produce will bring more capital to the province which is much needed to strengthen our economy and as such fully supported by Government.

The Agri-BEE report will be included in the EIA phase of the development.

SOCIAL PROVISION

1 Measures to address housing and living conditions:

- Most permanent employees live on the farm in subsidised housing with subsidised water and electricity.
- Workers not living on the farm and seasonal workers live in the nearby town and are transported daily to and from work.
- To increase the income of households, spouses of farm workers are used whenever possible for extra temporary and/or seasonal work on the farm.
- Workers are encouraged to establish vegetable gardens at their homes.

2 Measures to provide medical assistance:

- All employees have easy access to medical clinic services.
- If more medical attention is needed than the clinic can supply, employees are taken to doctor/hospital
- HIV/Aids and TB are a problem in the community, so regular information and training sessions are held on the farm by a nurse as a preventative measure.

3 Measures to address educational facilities and opportunities

	<p><input type="checkbox"/> There are Primary Schools in the nearby town Kirkwood. Kirkwood is only 12km from the farm and a Government subsidised bus transport primary school children from the farm on a daily basis to and from school.</p> <p><input type="checkbox"/> The nearest High school is in Kirkwood, about 12km from the farm. A subsidised bus service also transport these high school learners on a daily basis to and from school.</p>
<p>2.4. Will the development result in equitable (intra- and inter-generational) impact distribution, in the short- and long-term? Will the impact be socially and economically sustainable in the short- and long-term?</p>	<p>Yes.</p>
<p>2.5. In terms of location, describe how the placement of the proposed development will:</p> <p>2.5.1. result in the creation of residential and employment opportunities in close proximity to or integrated with each other,</p> <p>2.5.2. reduce the need for transport of people and goods,</p> <p>2.5.3. result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport),</p> <p>2.5.4. compliment other uses in the area,</p> <p>2.5.5. be in line with the planning for the area,</p> <p>2.5.6. for urban related development, make use of underutilised land available with the urban edge,</p> <p>2.5.7. optimise the use of existing resources and infrastructure,</p> <p>2.5.8. opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement),</p> <p>2.5.9. discourage "urban sprawl" and contribute to compaction/densification,</p> <p>2.5.10. contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs,</p> <p>2.5.11. encourage environmentally sustainable land development practices and processes,</p> <p>2.5.12. Take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.),</p> <p>2.5.13. the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential),</p> <p>2.5.14. impact on the sense of history, sense of place and heritage of the area and the socio-cultural and</p>	<p>Workers not residing on the property will be provided with transport to and from the site.</p> <p>No bulk services infrastructure will be required</p> <p>The development took into consideration favourable spatial factors as the property has access to water.</p> <p>The development will not negatively affect the sense of history or heritage/archaeological indicators.</p>

<p>cultural-historic characteristics and sensitivities of the area, and 2.5.15. In terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement?</p>	
<p>2.6. How were a risk-averse and cautious approach applied in terms of socio-economic impacts: 2.6.1. What are the limits of current knowledge (note: the gaps, uncertainties, and assumptions must be clearly stated)? 2.6.2. What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge? 2.6.3. Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development?</p>	<p>Gaps, uncertainties and assumptions: <u>Botanical:</u> To be assessed in EIA phase <u>Cultural/Heritage/Archaeologically:</u> To be assessed in EIA phase</p>
<p>2.7. How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following: 2.7.1. Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? 2.7.2. Positive impacts. What measures were taken to enhance positive impacts?</p>	<p>Cash crop production can be very labour-intensive, even more so if packed as well. It creates around 4 new employment positions per hectare if also packed on the farm. The new development will therefore create an immediate need to appoint more workers and supervisors. The new development will lead to the expansion of the farming operation, and will create a demand for new staff and new skills, eg. <input type="checkbox"/> Skilled agricultural labourers <input type="checkbox"/> Specific knowledge of crop production will be needed <input type="checkbox"/> Specific knowledge of packing will be needed <input type="checkbox"/> Support staff might be needed: Admin, forklift drivers, tractor operators and Code 14 drivers. Preference will be given to black/coloured people for these positions, and more specific black/coloured women where possible. Existing employees with experience on the farm, plus the potential to be leaders, will in the first place be identified for new supervisory positions.</p>
<p>2.8. Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in</p>	<p>The proposed development is for agricultural development in an area not sensitive to ecological impacts with positive socio economic impacts on the local community.</p>

ecological impacts (e.g. over utilisation of natural resources, etc.)?	
2.9. What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?	Design, comments, location, technology alternatives were considered to determine the best option.
2.10. What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)? Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?	The project is for the development and expansion of an existing farm with existing water. No discrimination will therefore takes place.
2.11. What measures were taken to pursue equitable access to environmental resources, benefits, and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?	The proposed development will occur according to the specific needs of the site and the any contractors will have to make use of trained staff.
2.12. What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?	Where local communities are employed, it will be the responsibility of the applicant to ensure their safety and to provide the relevant training for the execution of their tasks.
2.13. What measures were taken to: 2.13.1. ensure the participation of all interested and affected parties, 2.13.2. provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, 2.13.3. ensure participation by vulnerable and disadvantaged persons, 2.13.4. promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means, 2.13.5. ensure openness and transparency, and access to information in terms of the process, 2.13.6. ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge, and 2.13.7. Ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein was promoted?	Public participation will be done in accordance to the NEMA 2014 Regulations specifications. Skills development will be done for staff.
2.14. Considering the interests, needs and values of all the interested and affected parties, describe how	The proposed development will provide job opportunities for low and middle-

<p>the development will allow for opportunities for all the segments of the community (e.g. a mixture of low-, middle-, and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?</p>	<p>income groups and will provide capital for high-income groups.</p>
<p>2.15. What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?</p>	<p>Where local communities are employed, it will be the responsibility of the applicant to ensure their safety and to provide the relevant training for the execution of their tasks.</p>
<p>2.16. Describe how the development will impact on job creation in terms of, amongst other aspects:</p> <p>2.16.1. the number of temporary versus permanent jobs that will be created,</p> <p>2.16.2. whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area),</p> <p>2.16.3. the distance from where labourers will have to travel,</p> <p>2.16.4. the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and</p> <p>2.16.5. The opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.).</p>	<p>Cash crop production can be very labour-intensive, even more so if packed as well. It creates around 4 new employment positions per hectare if also packed on the farm.</p> <p>The new development will therefore create an immediate need to appoint more workers and supervisors.</p> <p>The new development will lead to the expansion of the farming operation, and will create a demand for new staff and new skills, eg.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Skilled agricultural labourers <input type="checkbox"/> Specific knowledge of crop production will be needed <input type="checkbox"/> Specific knowledge of packing will be needed <input type="checkbox"/> Support staff will be needed: Admin, forklift drivers, tractor operators and Code 14 drivers. <p>Preference will be given to black/coloured people for these positions, and more specific black/coloured women where possible.</p> <p>Existing employees with experience on the farm, plus the potential to be leaders, will in the first place be identified for new supervisory positions.</p>
<p>2.17. What measures were taken to ensure:</p> <p>2.17.1. that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and</p> <p>2.17.2. That actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures?</p>	<p>All policies and legislation were taken into account; all relevant governmental institutions applicable to the applications were requested to comment on the process.</p>
<p>2.18. What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will</p>	<p>Various mitigation measures to be implemented as part of the EA issued.</p>

serve the public interest, and that the environment will be protected as the people's common heritage?	
2.19. Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?	The mitigation measures will be provided by specialists during the EIA phase and will therefore be realistic.
2.20. What measures were taken to ensure that the costs of remedying pollution, environmental degradation, and consequent adverse health effects and of preventing, controlling, or minimising further pollution, environmental damage, or adverse health effects will be paid for by those responsible for harming the environment?	The development is agricultural in nature similar to the present usage of the farm.
2.21. Considering the need to secure ecological integrity and a healthy, biophysical, environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?	<p>In a rural area such as this with a high unemployment rate, any new employment positions have a huge impact on the immediate and extended families of such new workers. Add then also the impact of more people with proper housing, undergoing skills training and going to church, sport, etc. and children going to school, to understand the positive impact on this rural community. Even seasonal work opportunities has the advantage of extra income plus the opportunity to gain skills that can in future be used to gain permanent employment on the farm or elsewhere.</p> <p>Not only are the new employment opportunities important, but also the fact that:</p> <ol style="list-style-type: none"> 1. Existing jobs can be secured: The development will directly secure existing and new job opportunities. 2. The development will create the opportunity to plant different crops and varieties that can spread the preparation, harvesting and packing seasons over longer periods. This will support the entity in efforts to convert as much as possible seasonal job opportunities into permanent job opportunities. Especially black females from the farm and neighbouring towns will benefit here. The positive impact on their lives will even be more as some of them will now also be promoted to supervisor level to help manage the increased production as well as the increase in value-adding volume. 3. The increase in production of produce will bring more capital to the province which is much needed to strengthen our economy and as such fully supported by Government.

	The Agri-BEE report will be included in the EIA phase of the development.
2.22. Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope, and nature of the project in relation to its location and other planned developments in the area?	Only a positive cumulative socio-economic impact in the form of job creation and contributing to economic development.

5 Description of the environment and baseline conditions

5.1 Property description

5.1.1 Location in landscape

The characteristic of the area is typical of a farm being used for the grazing of livestock and the cultivation of crops. The area where the proposed development will take place consists mainly of natural veld with the remains of possible previous livestock farming; see Figure 7 & Figure 8. The site was previously destroyed from 2004, with evidence from Google Earth. There is existing infrastructure at the proposed development areas and all areas have existing roads and infrastructure to link into. Therefore, no new roads would have to be constructed.

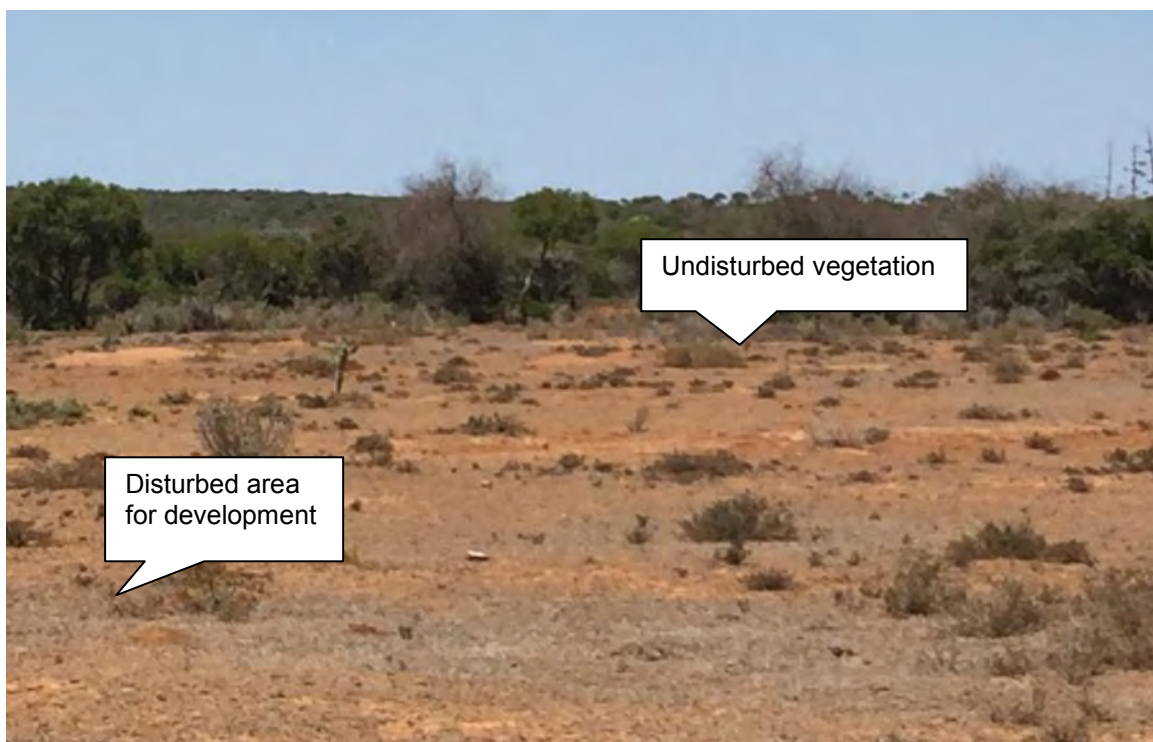


Figure 7: Disturbed areas compared to undisturbed vegetation



Figure 8: Area identified for proposed development

The application area is situated on land with a relatively even surface except for some individual rocky areas. The area where the development will take place is therefore suitable for a development of this nature, see Figure 9 & Figure 10. As outlined in the SANBI (BGIS Maps), see Figure 13, a portion of the site is situated in an area outlined as a Critical Biodiversity, as part of the Addo BSP, and the rest of the site is classified as an Ecological Support Area. Note, however, that these areas were possibly used for live stock farming and Google Earth Imagery indicated it has been disturbed since 2004.



Figure 9: Location in the landscape

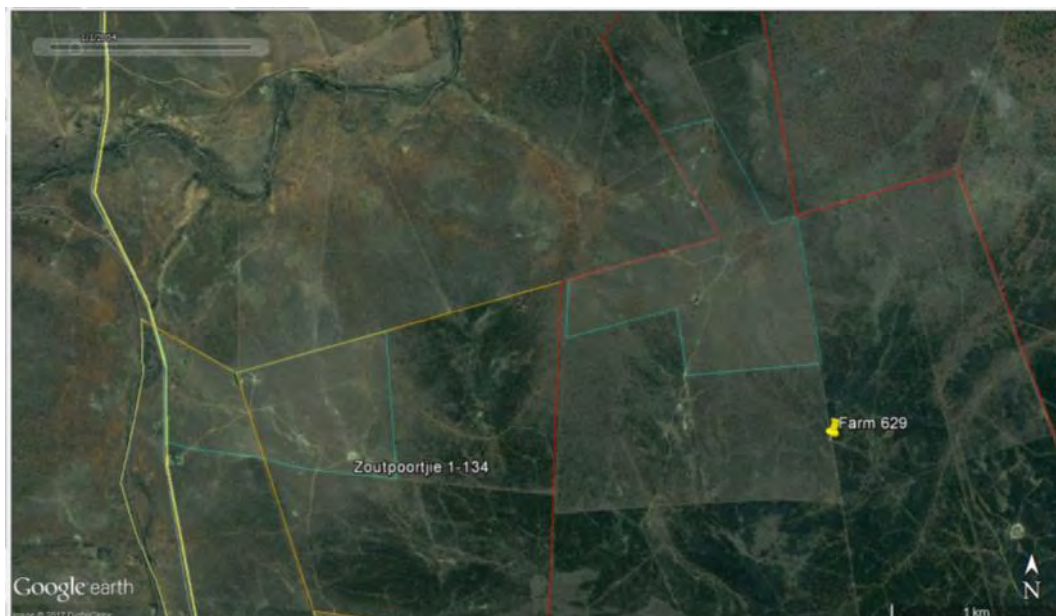


Figure 10: Google Earth Imagery indicating disturbance of site since 2004

5.1.2 Climate

The applicable farms fall within the Albany Thicket Biome which is classified as a semi-arid climate. Two prevailing climate systems converge in the region resulting in all-year rainfall with the maximum in spring and autumn. The Mean Annual Precipitation is 200-950mm. Kirkwood, the nearest town with measured rainfall and temperatures has a mean annual rainfall of 396 mm (see Table 4 & Figure 11), mean summer daytime temperature (November to March) of 29 °C and mean winter night temperature (April to October) of 23 °C.

Table 4: Weather data from Addo weather station over a period of 29 years (Source: <http://www.greateraddo.com/gac/gac.html>)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Average day temperature	29,2	29,3	28,1	26,2	24,0	21,9	21,9	22,6	23,6	24,6	26,3	28,1
Average night temperature	16,6	16,6	15,4	12,1	8,7	6,0	5,2	6,4	8,8	11,0	12,9	14,7
Maximum day temperature	45,1	45,5	43,3	41,1	37,6	33,0	35,8	35,0	39,9	42,0	44,6	44,1
Minimum night temperature	6,9	6,5	4,5	2,6	0,1	-2,0	-2,2	-1,5	-1,5	0,5	3,9	6,2
Average rainfall in mm	28	40	43	37	31	24	26	33	27	41	39	27
Average days with rainfall	6,0	6,7	8,2	6,6	5,4	5,2	4,3	5,6	5,8	7,2	7,3	5,2

Average days with precipitation per month

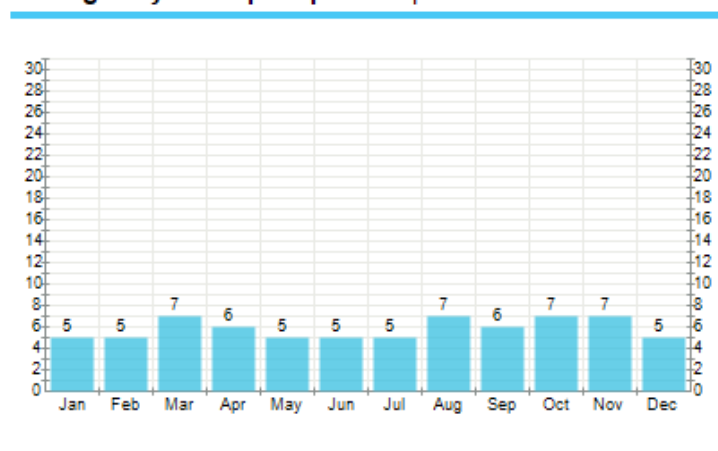


Figure 11: Average rainfall.

5.1.3 Topography, Geology and Soils

The elevation is approximately 160 m above mean seal level. Soils are mostly on deep (>1 m) red, loamy to clayey soils derived from the Sundays River and Kirkwood Formations (Mesozoic Uitenhage Group) in the south. In the inland region of the Sundays River, the soils are derived from Ecca Group shales and mudstones, and are heavy due to high clay content. Fc land type dominates the area, followed by Ae.

Soils show minimal development and are usually shallow, on hard or weathering rock, with or without intermittent diverse soils. Lime is generally present in part or most of the landscape.

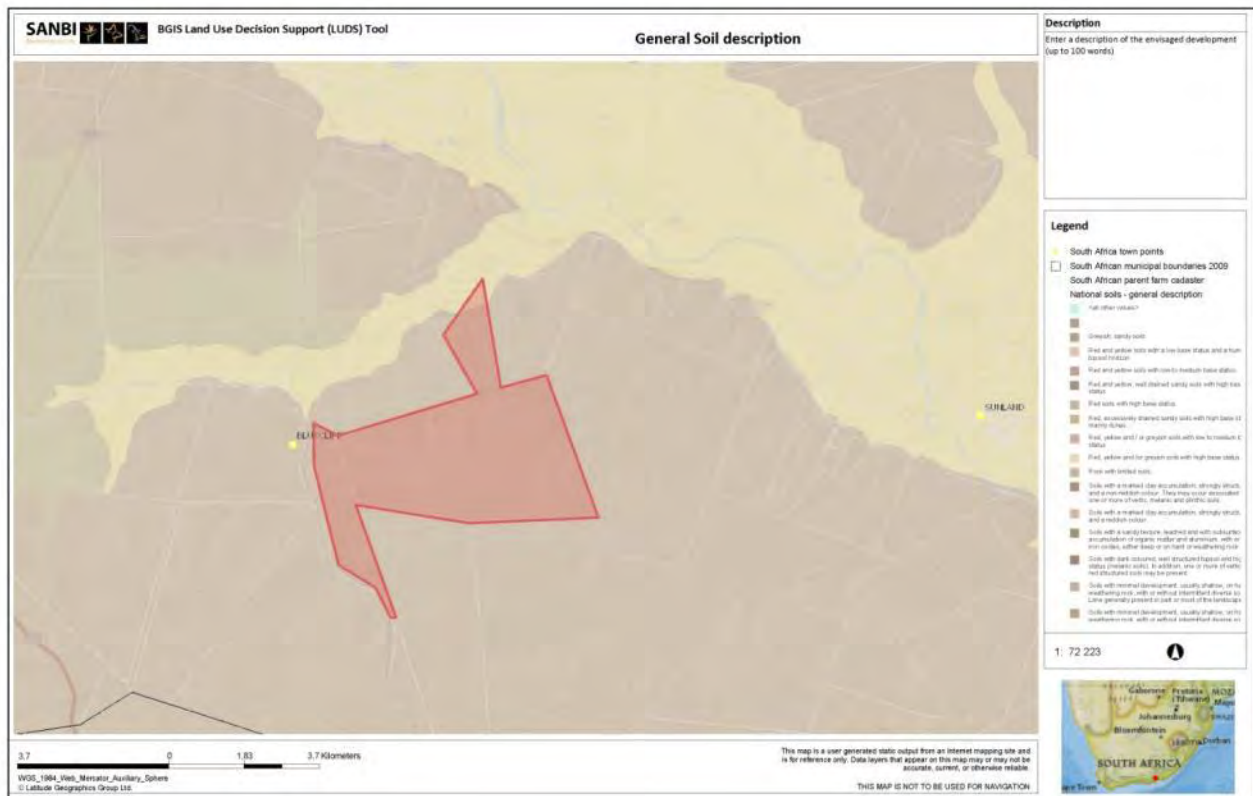


Figure 12: General soil map showing that the study area is all within the soil type (Source: BGIS by SANBI).

5.1.4 Vegetation

The proposed development area will falls within the Sundays Thicket classification. See summary below from SANBI:

SUNDAYS THICKET

Sundays Thicket is distributed in the Eastern Cape. It can be found from the surrounds of Uitenhage and the northern edge of Port Elizabeth into the lower Sundays River Valley to east of Colchester and northwards to the base of the Zuurberg Mountains and stretching westwards north of the Groot Winterhoek Mountains to roughly the Kleinpoort longitude. Also an extensive area north of the Klein Winterhoek Mountains including much of the Jansenville District and parts of the far-southern Pearston District and far-western Somerset East District. Altitude ranges between 0–800 m.

Vegetation & Landscape Features include Undulating plains and low mountains and foothills covered with tall, dense thicket, where trees, shrubs, and succulents are common, with many spinescent species. The transition between lower and upper canopies is obscured by the presence of a wide variety of lianas. The local dominance of *Portulacaria afra* increases and the relative abundance of woody species present decreases with increasing aridity. There is considerable structural heterogeneity within this vegetation unit.

ALBANY ALLUVIAL VEGETATION

A small area of the properties falls within the Albany Alluvial Vegetation (AZa 6).

Albany Alluvial is found Between East London and Cape St Francis on wide floodplains (usually close to the coast where the topography becomes flatter) of the large rivers such as the Sundays, Zwartkops, Coega, Gamtoos, Baviaanskloof, Great Fish River etc. This alluvial unit is embedded within the Albany Thicket Biome. Altitudes ranging from 20 – 1 000 m.

Vegetation & Landscape Features include Two major types of vegetation pattern are observed in these zones, namely riverine thicket and thornveld (*Acacia natalitia*). The riverine thicket tends to occur in the narrow floodplain zones in regions close to the coast or further inland, whereas the thornveld occurs on the wide floodplains further inland.

CRITICAL BIODIVERSITY AREAS & ECOLOGICAL SUPPORT AREAS

Critical Biodiversity Areas (CBAs) were determined by the Biodiversity Sector Plan for the Sundays River Valley Municipality (2012). The BSP aims to provide a common point of reference of biodiversity priority areas for municipal officials, environmental and planning professionals, the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), the Departments of Water and Environmental Affairs (DWEA), the Department of Agriculture, Forestry and Fisheries (DAFF), various other government and non-government agencies, landowners, developers, estate agents and the general public.

A portion of Portion 3 of Farm Brakleegte 135 falls within a CBA, and the rest of the properties fall within an Ecological Support Area. Please note that the farms were previously disturbed by agricultural activities.

An assessment report will however form part of the EIA phase of this development if required by the department, with more detail on the vegetation types and possible impacts, however no significant impacts are expected.

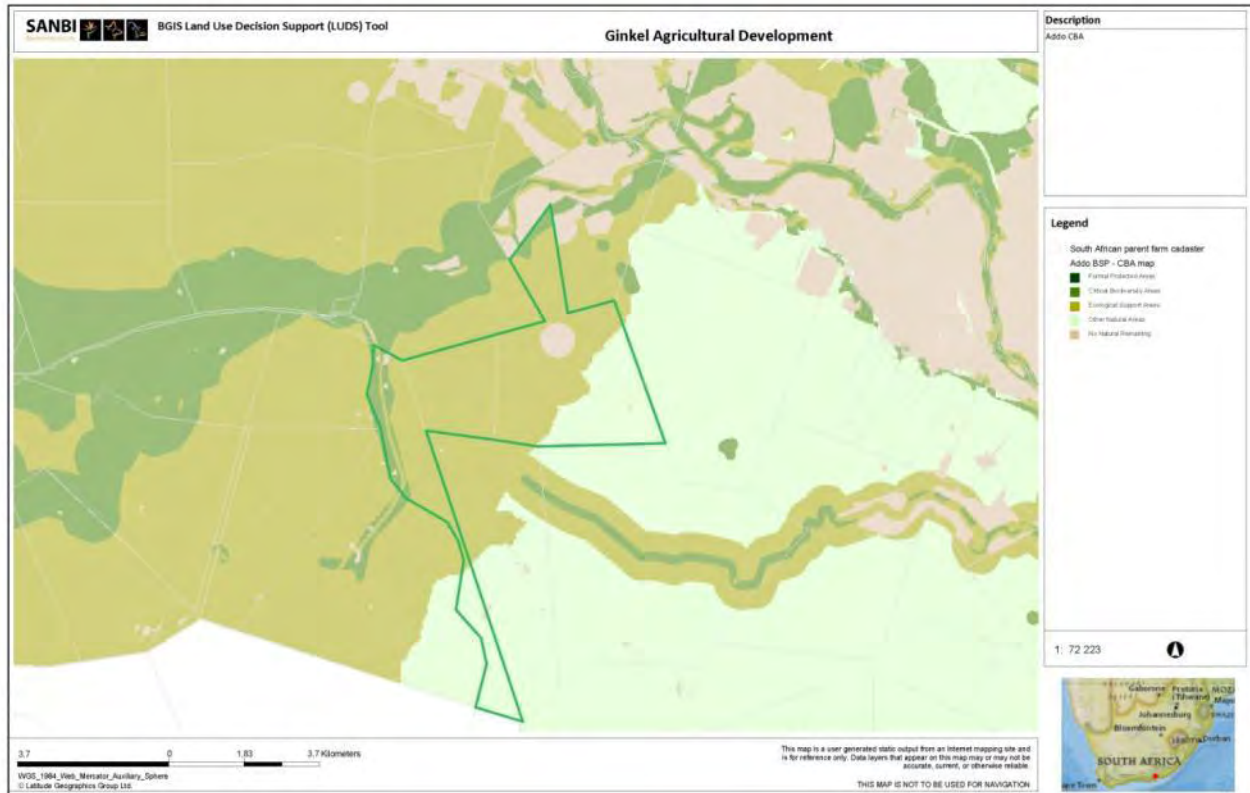


Figure 13: Portion of the Critical Biodiversity Areas map for the Addo Biodiversity Sector Plan showing indicating that a portion of Portion 3 of Farm 135 falls within a CBA. The other farms fall within an ESA.

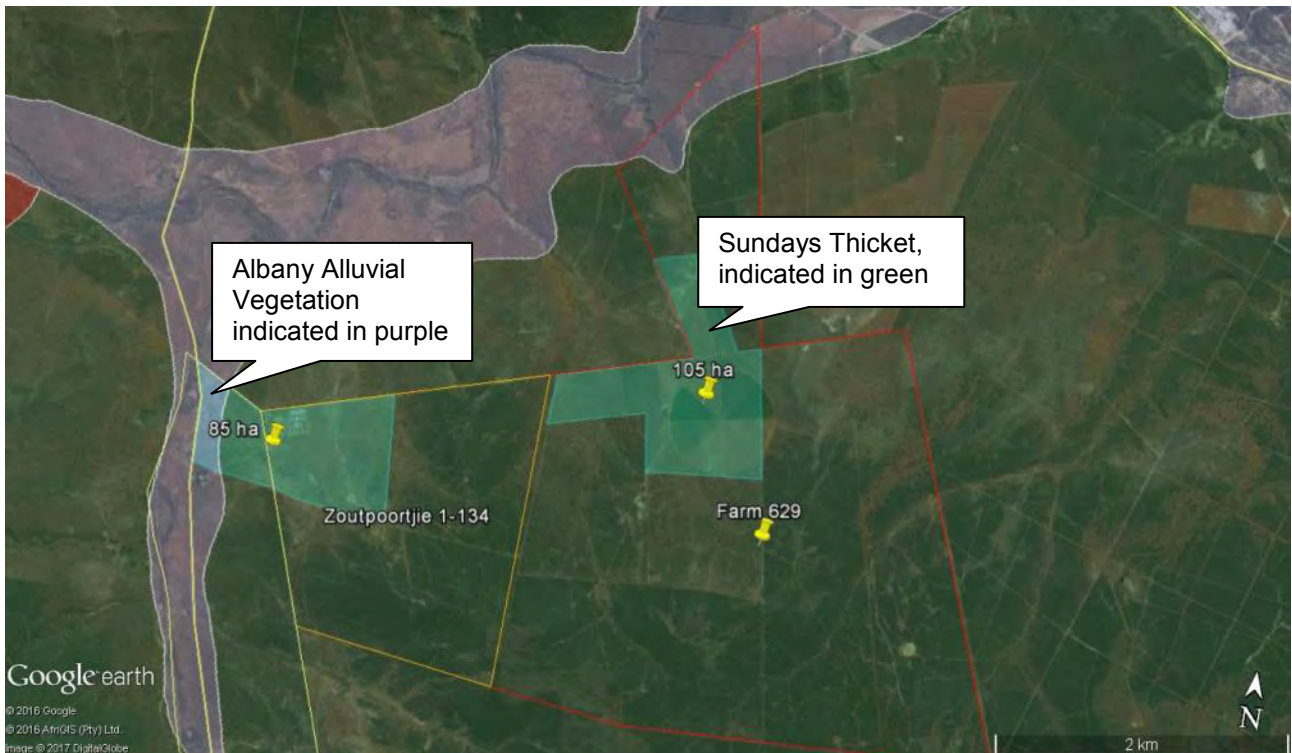


Figure 14: Vegetation classification of proposed site for development

5.1.5 Fresh Water Features

No Freshwater features are present on the proposed sites except for an off stream dam.

5.2 Baseline information

5.2.1 Vegetation

As outlined above in section 5.1.4, Sundays Thicket is of least threatened status and Albany Alluvial is classified as endangered. All though it is classified as endangered, the site was previously disturbed by agricultural activities, and only a small portion of the proposed development falls within this vegetation and therefore it can be outlined that the impact on these vegetation types is of low significance. In summary, the impact can be outlined as a low negative impact.

An assessment report will be compiled as part of the EIA phase if deemed necessary by DEDEAT.

5.2.2 Heritage, Archaeology and Palaeontology

A Heritage/Archaeological specialist will be appointed to assess the site and an application will be lodge to ECPHRA and SAHRA. It is highly probable that a Phase 1 Heritage Impact Assessment (HIA) will have to be compiled for the EIA phase.

5.2.3 Socio-Economic Environment.

SOCIO:

The applicant properties as part of the Ginkel Venter Familie Trust is a commercial agricultural (farming and game) unit, which is currently being farmed on a commercial basis. The properties are situated within an area surrounded by other farms and farming communities.

The closest town to the farm is the town of Kirkwood. A very competent and motivated workforce manages the other properties as part of company and contributes positively to the local economy and the provision of job opportunities in the region and the Eastern Cape Province.

It is envisaged that the applicant will need to create some new permanent and a number of new seasonal employee positions in the near future should the new development be approved.

Cash crop production can be labour-intensive, even more so if packed as well. It creates around four new employment positions per hectare if also packed on the farm. The new development will therefore possibly create an immediate need to appoint more workers and supervisors.

The new development will lead to the expansion of the farming operation, and will create a demand for new staff and new skills, eg.

- Skilled agricultural labourers
- Specific knowledge of crop production will be needed
- Specific knowledge of packing will be needed
- Support staff will be needed: Admin, forklift drivers, tractor operators and Code 14 drivers.

Preference will be given to black/coloured people for these positions, and more specific black/coloured women where possible.

Existing employees with experience on the farm, plus the potential to be leaders, will in the first place be identified for new supervisory positions.

ECONOMIC:

In a rural area such as this with a high unemployment rate, any new employment positions have a huge impact on the immediate and extended families of such new workers. Add then also the impact of more people with proper housing, undergoing skills training and going to church, sport, etc. and children going to school, to understand the positive impact on this rural community. Even seasonal work opportunities has the advantage of extra income plus the opportunity to gain skills that can in future be used to gain permanent employment on the farm or elsewhere.

Not only are the new employment opportunities important, but also the fact that:

4. Existing jobs can be secured: Farming development will directly secure existing and new job opportunities.
5. More sustainable development will immediately create the opportunity to proceed with the opportunity to plant new varieties and different crops that can spread the preparation, harvesting and packing seasons over longer periods. This will support the entity in their efforts to convert as much as possible seasonal job opportunities into permanent job opportunities. Especially black females from the farm and neighbouring towns will benefit here. The positive impact on their lives will even be more as more of them will now also be promoted to supervisor level to help manage the increased production as well as the increase in value-adding volume.
6. The increase in production of produce will bring more capital to the province which is much needed to strengthen our economy and as such fully supported by Government.

The Agri-BEE report will be included in the EIA phase of the development.

5.2.4 Electricity

The development falls within the capacity of Eskom. Note that additional electrical capacity is not necessary for the agricultural areas, as existing usage is sufficient.

5.2.5 Water Use License Application

The developer makes an application for a license in terms of the National Water Act, 1998, Ginkel Venter Familie Trust for the transfer water rights, the water usages is summarised as the follows:

<i>(a) taking water from a water resource;</i>	Transfer of water rights
--	--------------------------

An independent attorney has been appointed to handle the application on behalf of the applicant.

5.2.6 Alternative energy and optimisation

The proposed development of the areas will in effect result in the following measures to reduce energy and water usage:

- Use water sparingly and the latest irrigation technology and scheduling methods are always implemented.
- Best practices to reduce water consumption and lowest possible electricity consumption.

6 Alternatives

6.1 Alternative development

The development layout was developed using an opportunities and constraints analysis which included on the constraints side, mainly the suitability of the agricultural areas on the particular position from a design perspective as well as possible impacts on natural vegetation, this is clearly outlined in Alternative 1 (preferred alternative). From a technology perspective the suitability of the proposed agricultural activities to be established on the property, this is outlined in alternative 1 and 2. For the Scoping Process the following were considered, Alternative 1 (preferred alternative), Alternative 2 the agricultural activities alternative, and Alternative 3, the No-Go Option.

For A3 Layouts see section 11.4.1.

No site alternative was considered as this is the applicant's property, no other properties are available and this site has close access to the existing pipelines and infrastructure. The site was previously disturbed by agricultural areas and is less sensitive compared to other sections on the farms. Also no technology alternatives are available.

The alternatives considered for the development are described below:

ALTERNATIVE 1 (PREFERRED LOCATION/DESIGN AND TECHNOLOGY ALTERNATIVE):

This option will consist of agricultural land to be established, clearly outlined according to:

2. Transformation of approximately 190 ha of indigenous vegetation to cultivate various cash crops. The layout is shown below in Figure 15 (A3 version included in Appendix 11.4.1).



Figure 15: Alternative 1 – All proposed development areas

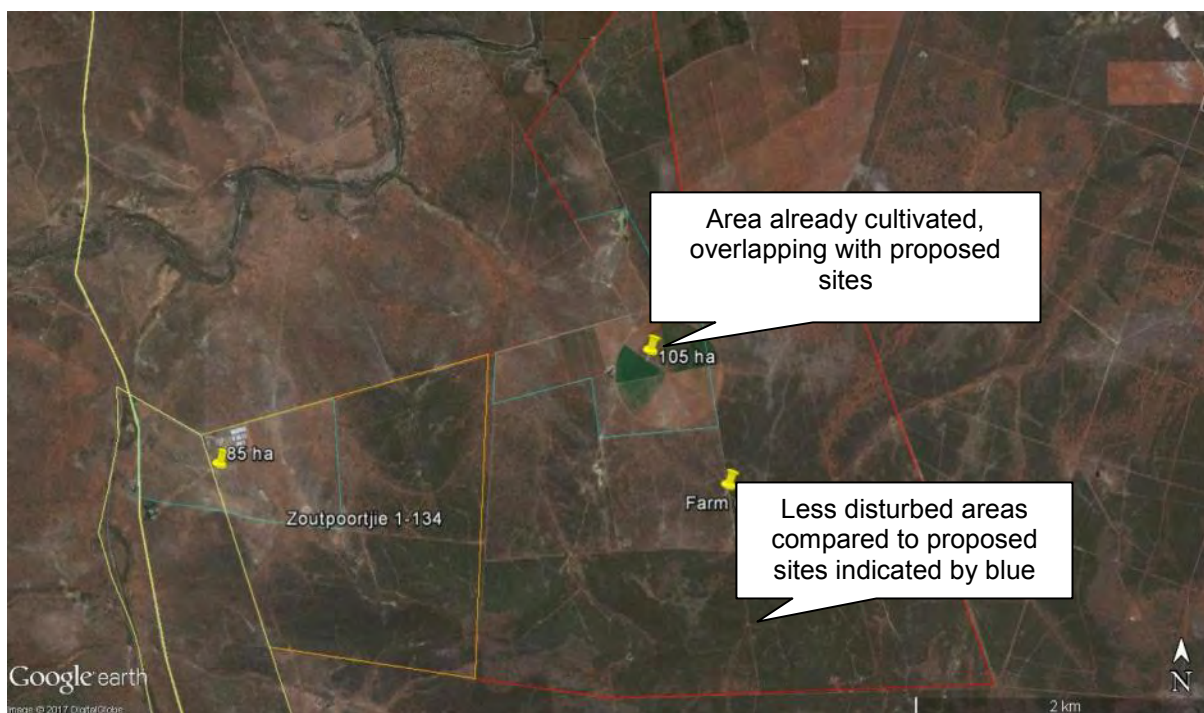


Figure 16: Comparison of proposed sites to rest of farms

This alternative is considered as preferred for the following reasons:

- From a design perspective this alternative was the best option. It took into consideration design measures by establishing agricultural areas as far as possible on areas that have already been disturbed.
- This alternative also located the development close to already existing dam and pipelines to reduce additional infrastructure needed as part of the proposed development.
- The area overlaps with areas already used for the cultivation of crops, thus expanding the area by not disturbing other areas.
- From a financial perspective this alternative was the best option. This development will contribute to the local and national market.
- From a vegetation perspective this alternative will have a low negative impact on vegetation as the area was previously disturbed by agricultural activities and is more degraded compared to other sections of the farm, see Figure 16.
- From a heritage/archaeological perspective this alternative will not have a significant impact, most probably a low impact with mitigation measures.
- This alternative will also fully utilise the farms agricultural potential according to existing water use rights and additional rights to be transferred.
- This alternative will also contribute socially to the upliftment of the existing workers through additional job opportunities.

It is clear therefore that this alternative meets the requirements of the socio-economic, vegetation, and design considerations and was deemed preferred.

ALTERNATIVE 2 (TECHNOLOGY ALTERNATIVE):

This option will consist of agricultural land to be established, clearly outlined according to:

4. Location – Farm 629, Portion 1 of Farm 134 and Portion 3 of Farm 135
5. Size – approximately 190 ha
6. Proposed agricultural activity – grazing of cattle

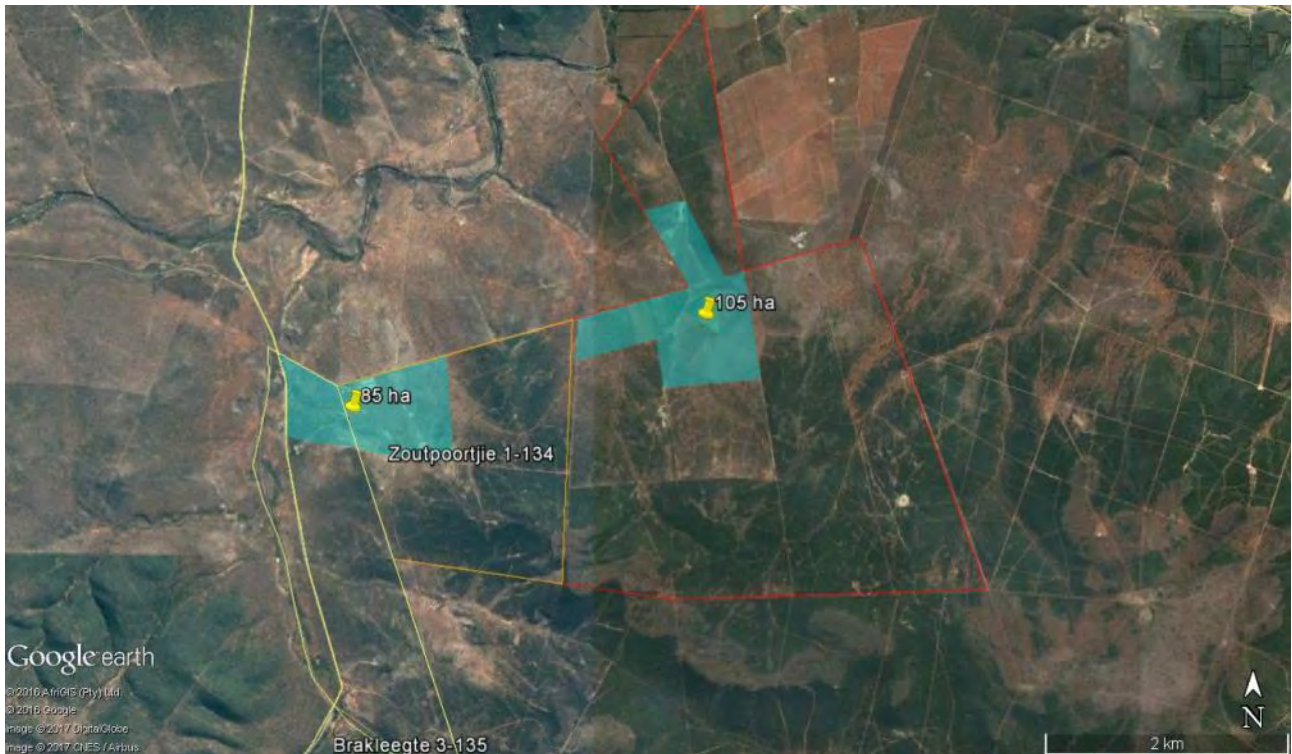


Figure 17: Alternative 2

This alternative is not considered as preferred for the following reasons:

- Even though this option is viable, from a financial perspective this is not best suited, as the low carrying capacity of the fields in the area, would result in a very small scale farming operation.
- Existing workers would lose job opportunities and existing jobs.

This alternative is therefore not deemed preferred and not better suited than that of Alternative 1.

ALTERNATIVE 3: NO-GO OPTION

This is not seen as preferred for the following reason:

- The current agricultural activities on the property are not being utilised to full potential. For this to take place additional agricultural areas would have to be established.
- From a botanical perspective the No Go alternative would lead to no further development of areas on the farms. The natural veld would remain as it is and there would be minimal change over time but with some low-level impacts due to human activity. The result would be a Very Low Negative impact.

- No social upliftment of existing workers and no additional job opportunities.

Therefore, this alternative is not seen as preferred as the expansion of agricultural activities will contribute to the agricultural potential of the property and if this does not take place the expansion of the farm to its full potential cannot take place. No upliftment and economical contribution can take place.

6.2 **Alternatives that will be considered**

Following from section 4.1 it is clear that Alternative 1 addresses the key concerns raised.

In conclusion, taking into consideration that Alternative 2 is not viable from a design, or vegetation perspective and the fact that Alternative 1 took into consideration inputs from relevant specialists and inputs during public participation, this development of alternative 1 is seen as preferred.

Alternative 1 as the preferred option and Alternative 3 the No-go Option, will be brought forward into the EIA phase of the development.

7 Issues identified

The purpose of scoping is to identify issues for further study in the EIA. A summary of the main identified issues is shown in Table 5. Two types of reports will be compiled.

3. A report on a specific technical subject – identified by shading and an X under “Reports” in Table 5.
4. Final specialist environmental impact reports, included in Scoping to be further assessed in the EIA phase, as outlined in Table 5.

Table 5: Identified issues, EIA studies and reports

Main issues identified	Comments addressed in section 3 following availability of Scoping Report	Reports	Final EIA studies
Heritage/Archaeology			X
Socio-Economic		X	
Vegetation			X – if deemed necessary by DEDEAT
EMP		X	
WULA		X	

7.1 Identified environmental issues

7.1.1 Heritage and Archaeology

A Heritage/Archaeological specialist will be appointed to conduct an assessment of the site and an application will be lodge to ECPHRA and SAHRA. It is highly probable that a Phase 1 Heritage Impact Assessment (HIA) will have to be compiled for the EIA phase.

Mitigation:

If any archaeological material or human burials are uncovered during the course of development then work in the immediate area should be halted. The find would need to be reported to the heritage authorities and may require inspection by an archaeologist. Such heritage is the property of the state and may require excavation and curation in an approved institution.

7.1.2 Vegetation

As outlined in section 5.2.1 a summary report will be compiled by a specialist if found necessary by DEDEAT. The vegetation types found on site is of low botanical sensitivity and was disturbed by previous agricultural activities. The proposed development will probably have low negative impact on the vegetation if the appropriate mitigation measures are implemented.

Mitigation:

Mitigation during the planning, construction and operation phases of this proposed development are as follows:

- No unnecessary disturbance flora may take place
- Any possible impacts will be addressed by careful planning and minimal water abstraction.
- The use of pesticide should be severely limited, or banned entirely to maintain biodiversity.

7.1.3 Fauna

Although not observed during the site visit, it is expected that small game such as klipspringer, steenbok, porcupines, baboons, and dassies will be found in the area. Some bird species were also found. However, it is not anticipated that the proposed development will have a significant negative impact on these species.

Habitat destruction and the possible genetic contamination of species are however, all factors that can negatively influencing vertebrate species, but can be minimized through applying the following mitigation measures:

Mitigation

- Regular maintenance of the water network will minimize the damage done by porcupines.
- No hunting of small game with dogs will be allowed.
- In order to ensure that all fauna will be able to relocate to the adjacent veld, openings should be made in the fences surrounding the proposed development area before any construction work may commence
- To ensure environmentally friendly farming practices, the site manager will have to adhere to the requirements and prescriptions which will be included in the environmental management plan to be included as part of the EIA process. This plan will also deal with issues such as the prohibition of the hunting of small game etc.

7.1.4 Land uses

The planned development is situated within a purely agricultural area with no other land uses in close proximity. The proposed development will therefore have no impact on any surrounding land uses in the area.

7.1.5 Water

An application for a license in terms of the National Water Act, 1998 will be made by the developer, Ginkel Venter Familie Trust for the transfer water rights and the water usages is summarised as the follows:

<i>(a) taking water from a water resource;</i>	Transfer of water rights
--	--------------------------

The WULA will be included in the EIA phase. And an independent attorney has been appointed to undertake this application.

Mitigation

- Measures should be implemented to reduce water use within the proposed development, such as the use of tension meters to avoid over irrigation of the soils.
- Environmental education programs for workers will ensure that they will be sensitive to the environment and report incidents such as leaking taps, broken irrigation systems, hunting of small game etc.

7.1.6 Sewage disposal

Chemical toilets will be provided for the workers in the agricultural land. These toilets will be emptied on a daily basis in the sewage tank system at the households.

Mitigation

With regard to the development work at the site it must be ensured that the applicant/ contractor provide sufficient sanitation facilities for the use of his employees during the actual construction period. The applicant/ contractor will be solely responsible for the proper use and maintenance thereof in conditions, which are to the satisfaction of both the contractor and the applicant. All facilities must be positioned within walking distance from wherever employees or labourers are at work.

Other specifications to be adhered to are, amongst others, the following;

- All facilities provided at the site must comply with the requirements of the Local Municipality.
- No sewerage facility may be erected within a radius of 100m from a water source.
- The applicant/ contractor must be held responsible for the cleaning of the sanitary facilities to prevent health hazards for the duration of the contract.
- Sanitary facilities must be provided at a ratio of one (1) facility for every fifteen (15) persons.
- All sanitation facilities must be sited, in terms of the specifications of the National Water Act no. 36 of 1998, in such a way that they do not cause water- or other pollution.

7.1.7 Solid waste disposal

The application area is located within the municipal area of Sundays River Valley Municipality. No household waste will be generated as part of this application.

All facilities in use during the construction phase must be utilized and maintained in a manner that prevents pollution of any groundwater sources. No waste of any kind may be disposed of in the surrounding environment.

Mitigation

A no-nonsense approach with regard to littering on the farm exists and the neatness of the workplace as well as the residential areas is all high priorities for the management.

Sufficient provision should be made for rubbish bins on the farm to prevent workers from littering. These rubbish bins should be clearly marked and be visible.

7.1.8 Air and noise pollution

Air Pollution

During the construction phase, and due to the nature of the project, a small amount of smoke (from machines) and dust could be generated. Dust pollution may have an impact on the operational workers.

Mitigation

In order to minimize the effect of dust pollution, the construction area should be kept wet as far as possible and the workers must wear the necessary safety clothing. The applicant is referred to section 19 of the National Water Act no. 36 of 1998 with regard to the prevention of, and remedies for, the effects of pollution. In terms of this section of the Act, the person who owns controls, occupies or uses the land in question is responsible for taking measures to prevent pollution of water resources and property.

Noise Pollution

During the construction phase there may be minimal and sporadic incidents noise pollution due to the construction activities such as noise as a result of earthworks. Due to the fact that the area is situated within an agricultural environment, the impact is not expected to be severe.

Mitigation

The applicant/contractor should make adequate provision to prevent or minimize the possible effects of noise pollution. Should the noise from the construction work be found to cause problems, (which is not anticipated to be the case) work hours in these areas may be restricted between 06:00 and 20:00, or as otherwise agreed between the parties involved. Strict measures should therefore be enforced, especially in terms of the contract specifications, to prevent any negative impacts in this regard.

7.2 Assessment criteria or methodology used

The criteria for the description and assessment of environmental impacts were drawn from the National Environmental Management Act, 1998 (Act No.107 of 1998).

The level of detail was somewhat fine-tuned by assigning specific values to each impact. In order to establish a coherent framework within which all impacts could be objectively assessed it is necessary to establish a rating system, which is consistent throughout all criteria. For such purposes, each aspect was assigned a value, ranging from 1-5, depending on its definition.

H-2.1 Potential Impact

This is an appraisal of the type of effect the proposed activity would have on the affected environmental component. Its description should include what is being affected and how it is being affected.

H-2.2 Extent

The physical and spatial scale of the impact is classified as:

- **Local**

The impacted area extends only as far as the activity, e.g. a footprint.

- **Site**

The impact could affect the whole, or a measurable portion of the site.

- **Regional**

The impact could affect the area including the neighbouring erven, the transport routes, and the adjoining towns.

H-2.3 Duration

The lifetime of the impact, which is measured in relation to the lifetime of the proposed base?

- **Short term**

The impact either will disappear with mitigation or will be mitigated through a natural process in a period shorter than any of the phases.

- **Medium term**

The impact will last up to the end of the phases, where after it will be entirely negated.

- **Long term**

The impact will continue or last for the entire operational lifetime of the Development, but will be mitigated by direct human action or by natural processes thereafter.

- **Permanent**

This is the only class of impact, which will be non-transitory. Mitigation either by man or natural process will not occur in such a way or in such a time span that the impact can be considered transient.

H-2.4 Intensity

The intensity of the impact is considered here by examining whether the impact is destructive or benign, whether it destroys the impacted environment, alters its functioning, or slightly alters the environment itself. These are rated as:

- **Low**

The impact alters the affected environment in such a way that the natural processes or functions are not affected.

- **Medium**

The affected environment is altered, but functions and processes continue, albeit in a modified way.

- **High**

Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project.

H-2.5 Probability

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

- **Improbable**

The possibility of the impact occurring is none, due either to the circumstances, design or experience.

- **Possible**

The possibility of the impact occurring is very low, due either to the circumstances, design or experience.

- **Likely**

There is a possibility that the impact will occur to the extent that provisions must therefore be made.

- **Highly Likely**

It is most likely that the impacts will occur at some stage of the Development. Plans must be drawn up before carrying out the activity.

- **Definite**

The impact will take place regardless of any prevention plans, and only mitigation actions or contingency plans to contain the effect can be relied on.

H-2.6 Determination of Significance – Without Mitigation

Significance is determined through a synthesis of impact characteristics, and is an indication of the importance of the impact in terms of both physical extent and time scale. The significance of the impact “without mitigation” is the prime determinant of the nature and degree of mitigation required. Where the impact is positive, significance is noted as “positive”. Significance is rated on the following scale:

- **No significance**

The impact is not substantial and does not require any mitigation action.

- **Low**

The impact is of little importance, but may require limited mitigation.

- **Medium**

The impact is of importance and is therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.

- **High**

The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

H-2.7 Determination of Significance – With Mitigation

Significance is determined through a synthesis of impact characteristics. It is an indication of the importance of the impact in terms of both physical extent and time scale, and

therefore indicates the level of mitigation required. In this case, the prediction refers to the foreseeable significance of the impact after the successful implementation of the suggested mitigation measures. Significance with mitigation is rated on the following scale:

- **No significance**

The impact will be mitigated to the point where it is regarded to be insubstantial.

- **Low**

The impact will be mitigated to the point where it is of limited importance.

- **Low to medium**

The impact is of importance, however, through the implementation of the correct mitigation measures such potential impacts can be reduced to acceptable levels.

- **Medium**

Notwithstanding the successful implementation of the mitigation measures, to reduce the negative impacts to acceptable levels, the negative impact will remain of significance. However, taken within the overall context of the project, the persistent impact does not constitute a fatal flaw.

- **Medium to high**

The impact is of great importance. Through implementing the correct mitigation measures, the negative impacts will be reduced to acceptable levels.

- **High**

The impact is of great importance. Mitigation of the impact is not possible on a cost-effective basis. The impact continues to be of great importance, and, taken within the overall context of the project, is considered to be a fatal flaw in the project proposal. This could render the entire development option or entire project proposal unacceptable.

8 Public Participation

Public participation included the following:

- **Registration and advertisement**

An advertisement will be placed in the Herald on the 19 June 2017. This advertisement serves as a notice for registration as an Interested and Affected Parties and to provide comment on the dSR as part of the public participation. The registration/comment period will be from Wednesday 21 June 2017 until Friday 21 July 2017.

- **Notice Board**

Notice Boards will be displayed at the entrance of the farm from Wednesday 21 June 2017 (See section 11.1.3).

- **Information and reporting for formal process**

A notice that included the Executive Summary and draft Scoping Report will be made available and distributed by registered post to all registered I&APs and neighbours for the 30-day commenting period, from Wednesday 21 June 2017 until Friday 21 July 2017. The notice also informs all I&AP's of the availability of the Scoping Report which could be obtained from the EAP. Comments received will be included in the final Scoping Report. The actual comments received on the Executive Summary and Scoping Report, as part of the public participation, will be included in the final Scoping Report as shown in section 11.1.5. Digital copies will be made available on the website www.pbpscon.co.za and distributed to all I&AP's.

Hard copies of the report will also sent to the following Authorities: DEDEAT, Department of Water and Sanitation, Department of Agriculture, Eastern Cape Provincial Heritage Resource Agency and SAHRA, Sundays River Valley Municipality, Cacadu District Municipality and Addo BSP representative.

- **I&AP database**

The I&AP database was developed from registered and listed I&APs shown in section 11.1.1. The database will be updated to include new I&AP's that have submitted comments on the Scoping Report.

All comments received will be addressed in the Comments and Response sheet, in Appendix 11.1.6.

9 EIA Phase

9.1 Public participation

On completion of the EIR all I&APs on the database will be informed about the availability thereof. The various authorities will be approached directly to finalise their comments. The authorities will include DEDEAT, Department of Water and Sanitation, Department of Agriculture, Eastern Cape Provincial Heritage Resource Agency and SAHRA, Sundays River Valley Municipality, Cacadu District Municipality and DEDEA biodiversity. DEDEAT will be consulted regularly and informed about progress during the EIA phase.

9.2 TOR for EIA studies

According to NEMA 2014 Regulations, Appendix 6 the following should be included in the specialist reports:

“Specialist reports:

1. (1) *a specialist report prepared in terms of these Regulations must contain-*
 - (a) *Details of-*
 - (i) *The specialist who prepared the report; and*
 - (ii) *The expertise of that specialist to compile a specialist report including a curriculum vitae;*
 - (b) *A declaration that the specialist is independent in a form as may be specified by the competent authority;*
 - (c) *An indication of the scope of, and the purpose for which, the report was prepared;*
 - (d) *The date and season of the site investigation and the relevance of the season to the outcome of the assessment;*
 - (e) *a description of the methodology adopted in preparing the report or carrying out the specialised process; the specific identified sensitivity of the site related to the activity and its associated structures and infrastructure;*
 - (g) *An identification of any areas to be avoided, including buffers;*
 - (h) *A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;*
 - (i) *A description of any assumptions made and any uncertainties or gaps in knowledge;*
 - (j) *A description of the findings and potential implications of such findings on the impact of the proposed activity, including identified alternatives on the environment;*
 - (k) *Any mitigation measures for inclusion in the EMPr;*
 - (l) *any conditions for inclusion in the environmental authorisation;*

(m) Any monitoring requirements for inclusion in the EMPr or environmental authorisation;

(n) A reasoned opinion-

(i) As to whether the proposed activity or portions thereof should be authorised; and

(ii) If the opinion is that the proposed activity or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;

(o) A description of any consultation process that was undertaken during the course of preparing the specialist report;

(p) A summary and copies of any comments received during any consultation process and where applicable all responses thereto; and

(q) Any other information requested by the competent authority.”

A full Plan of Study for EIA with TOR for each study is shown in section 11.5.

9.3 Activities during the EIA Phase

On acceptance of the Final Scoping Report the applicant will develop the final layout for Alternative 1. EIA studies as listed in Section 9, using the TOR in section 11.5, will be undertaken and reports compiled. At the same time the Reports, as also listed in Section 9, will be finalised. The EIA Reports and other Reports will be made available to the various specialists to identify cumulative impacts and the various reports will be updated and finalised. The authorities as listed in section 11.1.1 will be consulted to obtain comments or approvals, as relevant.

When all information is available, the EIR will be compiled where after the Public Participation Process will commence as outlined in section 9.

10 Conclusions

10.1 General

Taking into account that the purpose of scoping is *“must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process”* it can be concluded that the process has been successful because a number of issues have been identified for further study and a preferred alternative has been identified.

The proposed development has been identified and the layout designed according to the findings of the baseline studies to ensure minimal impact on the environment. Alternative 1 addresses the key concerns concerning design and the inputs from the specialists through the following:

- No constraints were identified from a botanical perspective that would prevent the agricultural development from proceeding as long as suitable mitigation is implemented.
- No significant impact expected on heritage/archaeology, dependant on the outcome of the application lodged to ECPHRA/SAHRA.
- Determined the best suitable alternative through assessing the impacts on the environment, preferred alternative 1 was determined.
- The farm can be utilised to its full agricultural potential.
- It will also result in the social upliftment of the existing workers and create additional job opportunities.
- Financially contribute to the local and national market.

Only investigate the detailed impacts and mitigation measures for Alternative 1 can, however, during the EIA phase as per the Plan of Study for EIA as in section 11.5.

Note that the **“do nothing option”**, has been investigated as Alternative 3 and when taking into consideration that the current agricultural potential of the property is not utilising to its full potential, thus keeping the site as is, is not deemed as preferred.

Thus Alternative 1 and Alternative 3: No-Go Option will be brought forward and investigated in the EIA Phase.

11 Appendices

11.1 Public participation

11.1.1 I&AP database

AUTHORITIES AND I&AP's

	Representing	Surname	Initials	Tel	Fax	Email	Post Box	Town	Code	Reg
1	Portion 310 Of Farm 42	Bouwer	S.L.	0422910902			P O Box 662	Jeffreys Bay	6330	L
2	Portion 2 Of Farm 87	Transnet					P.O. Box 638	Port Elizabeth	6000	L
3	Portion 219 Of 42	Bekker	J.N.	0419227810			4 Strelitzia weg	Uitenhage	6229	L
4	Farm 710, Portion 2 of Farm 683	Jan An Boerdery Trust Uitsig Boerdery Trust					P.O. Box 7	Kirkwood	6120	L
6	Portion 4 Of Farm 632	Klein Rooipoort Trust					P.O. Box 11	Sunland	6115	L
7	Portion 4 Of Farm 134, Portion 4 Of Farm 135, Portion 3 Of Farm 683	Ginkel Venter Familie Trust	Applicant				P.O. Box 59	Uitenhage	6230	L
8	Portion 4 Of Farm 189	Blaauwkrantz Farming Enterprises C C					P.O. Box 583	Uitenhage	6230	L
9	Farm 187 & 188	Arthur Rudman Family Trust					P.O. Box 583	Uitenhage	6230	L
10	Re Of Farm 135	No Information Available On Windeed								

11	Portion 1 Of Farm 135	Daniell Edwin Alfred Richard		0422300786			P O Box 342	Kirkwood	6120	L
12	Eastern Cape Province Heritage Resource Agency	Mokhanya	S	043 745 0888	043 745 0889	info@ecphra.org.za				E
13	Department of Water Affairs: Eastern Cape						Private Bag X6041	Port Elizabeth	6000	L
14	Department of Agriculture and Rural Development – Eastern Cape						Private Bag X0040	BISHO	5605	L
	Sundays River Valley Local Municipality	Municipal manager and ward councillor					P.O. Box 47	Kirkwood	6120	L
	Sarah Baartman District Municipality	Municipal manager					P.O. Box 318	Port Elizabeth	6000	L
	DEDEAT: Conservation	Ferreira	G			gerrie.ferreira@deaet.ecape.gov.za	P. O. Box 1733	Jeffreys Bay	6330	L

11.1.2 Advertisements

11.1.2.1 Proof of advertisements.

TO BE INCLUDED IN FSR

11.1.3 Notice Boards

11.1.3.1 Text for the site notice

TO BE INCLUDED IN FSR

11.1.3.2 Proof of Notice Boards

TO BE INCLUDED IN FSR

11.1.4 Proof of notices

11.1.4.1 Proof of notices for SR

TO BE INCLUDED IN FSR

11.1.5 Notices

11.1.5.1 Notices sent to I&APs and Authorities for SR

TO BE INCLUDED IN FSR

11.1.6 Comments received

11.1.6.1 Comments on SR

TO BE INCLUDED IN FSR

11.1.7 Comments and responses sheet

TO BE INCLUDED IN FSR

11.2 Licenses and permits

11.2.1 Heritage comment

11.2.1.1 Comment

The scoping report was uploaded to the SAHRIS website and emailed to ECPHRA.

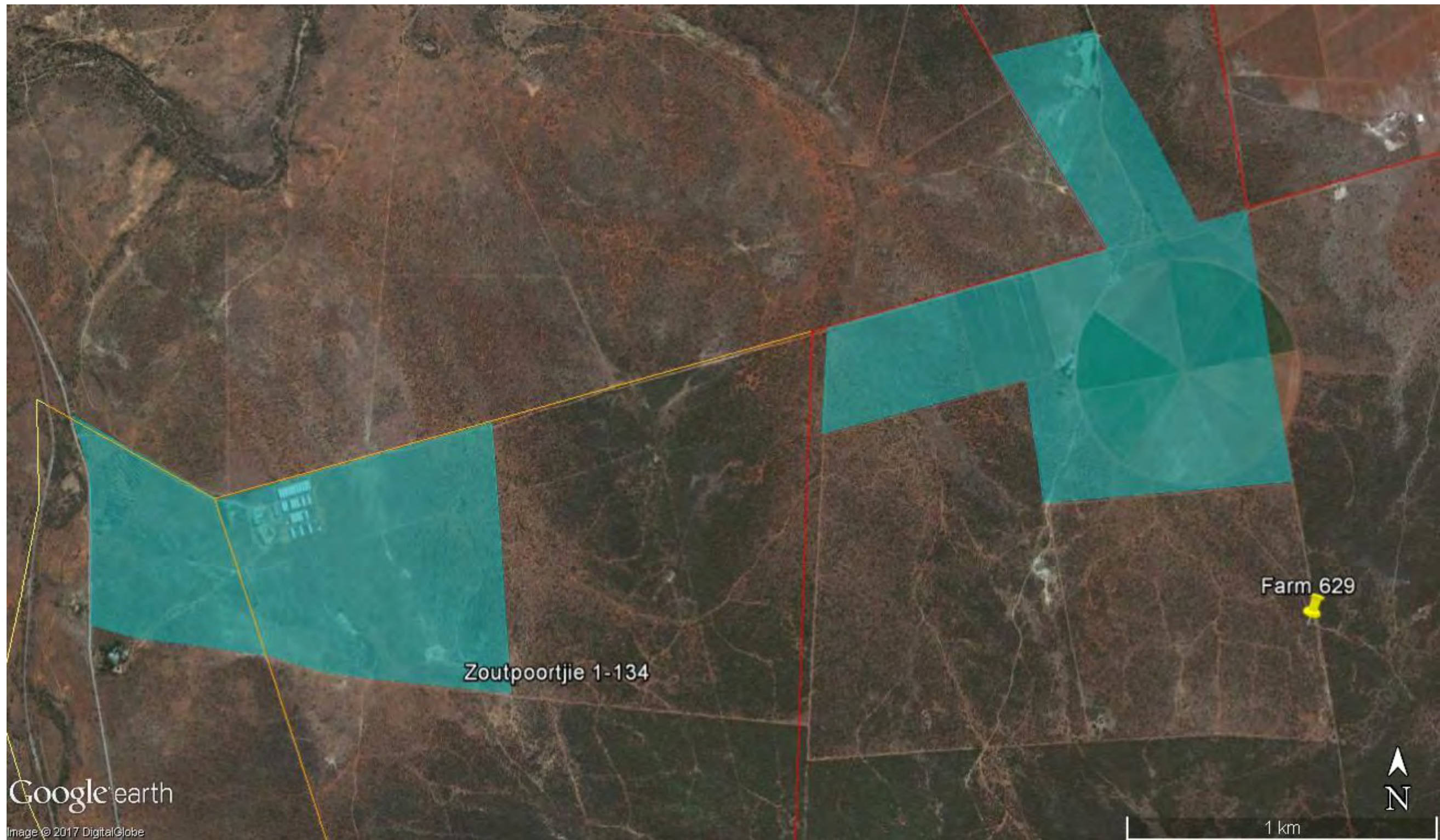
11.3 **Baseline studies**

None included for scoping phase.

11.4 Alternatives

11.4.1 Alternative Layouts:

11.4.1.1 Alternative layout 1: Preferred layout



11.5 Plan of study for EIA

<p style="text-align: center;">PLAN OF STUDY FOR EIA PROPOSED AGRICULTURAL DEVELOPMENT ON FARM 629, PORTION 1 OF FARM ZOUTPOORTJIE 134 AND PORTION 3 OF FARM BRAKLEEGTE 135, KIRKWOOD, CACADU DISTRICT, EASTERN CAPE</p>
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Note:

The National Environmental Impact Assessment Regulations, 2014 (as amended in GN. R326, April 2017) state that a plan of study for environmental impact assessment which sets out the proposed approach to the environmental impact assessment of the application, which must include –

“(h) a plan of study for undertaking the environmental impact assessment process to be undertaken, including—

- (i) a description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity;*
- (ii) a description of the aspects to be assessed as part of the environmental impact assessment process;*
- (iii) aspects to be assessed by specialists;*
- (iv) a description of the proposed method of assessing the environmental aspects, including aspects to be assessed by specialists;*
- (v) a description of the proposed method of assessing duration and significance;*
- (vi) an indication of the stages at which the competent authority will be consulted;*
- (vii) particulars of the public participation process that will be conducted during the environmental impact assessment process; and*
- (viii) a description of the tasks that will be undertaken as part of the environmental impact assessment process;*
- (ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored. “*

1 ALTERNATIVES

Four alternatives were developed during scoping. The conclusion as reported in the Scoping Report is that the following will be investigated:

- Preferred option: Alternative 1
- No-Go Option: Alternative 3

2 SPECIALIST STUDIES & REPORTS

The following EIA specialist reports are required (see Appendix A in section 9 for Terms of Reference):

- Heritage/Archaeology Assessment
- Botanical Assessment Report (if required by DEDEAT)
- Socio-Economic summary report
- Water Use License Application

Apart from the EIA impact studies listed above the following information studies will also be undertaken (see Appendix B in section 10 for TOR):

- EMP

3 RESPONSE TO COMMENTS FROM SCOPING

The final comment tables from scoping (include comments on Executive Summary and draft and final Scoping Report) will be included in Appendix C in section 11. All consultants will provide responses on applicable comments in their reports.

Any comments or requirements from DENC when accepting the Scoping Report will be included in Appendix D in section 12

4 REPORT REQUIREMENTS

The guidelines for EIA (Appendix 6 of NEMA 2014) reports state *inter alia* with reference to impact studies that the following must be included:

“Specialist reports

(1) A specialist report prepared in terms of these Regulations must contain-

(a) details of-

(i) the specialist who prepared the report; and

(ii) the expertise of that specialist to compile a specialist report including a curriculum vitae;

(b) a declaration that the specialist is independent in a form as may be specified by the competent authority;

(c) an indication of the scope of, and the purpose for which, the report was prepared;

(d) the date and season of the site investigation and the relevance of the season to the outcome of the assessment;

(e) a description of the methodology adopted in preparing the report or carrying out the specialised process; the specific identified sensitivity of the site related to the activity and its associated structures and infrastructure;

(g) an identification of any areas to be avoided, including buffers;

(h) a map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;

(i) a description of any assumptions made and any uncertainties or gaps in knowledge; a description of the findings and potential implications of such findings on the impact of the proposed activity, including identified alternatives on the environment;

(k) any mitigation measures for inclusion in the EMPr;

(l) any conditions for inclusion in the environmental authorisation;

(m) any monitoring requirements for inclusion in the EMPr or environmental authorisation;

(n) a reasoned opinion-

(i) as to whether the proposed activity or portions thereof should be authorised; and

(ii) if the opinion is that the proposed activity or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;

(o) a description of any consultation process that was undertaken during the course of preparing the specialist report;

(p) a summary and copies of any comments received during any consultation process and where applicable all responses thereto; and any other information requested by the competent authority."

5 A DESCRIPTION OF THE PROPOSED METHOD OF IDENTIFYING AND ASSESSING IMPACTS

The requirements of each impact report are shown in the TOR in Appendix A in section 9. Apart from those requirements each impact report (botanical assessment report, socio-economic summary report and heritage impact assessment report) must include a section that covers the above (A) i to vii,(B) and (C). Examples of comparative assessment of impacts are shown below. Consultants must use similar methods in their reports.

IMPACTS

Apart from a summary in words the impacts and ratings must also be summarised in table form.

MITIGATION MEASURES

Apart from a summary in words the impacts and ratings must also be summarised in table form.

COMPARISON OF IMPACTS – Use actual numbers wherever possible

6 DESCRIPTION OF THE ACTIVITY TO BE UNDERTAKEN

A development diagram will be developed for each alternative together with a description of the activity. The specialist consultants will use these diagrams and descriptions to compile their impact assessment reports.

7 TASKS TO BE PERFORMED DURING EIA

7.1 Advertise and meetings

On completion of the draft EIR all I&APs on the database will be informed about the availability thereof. The various authorities will be approached directly to finalise their comments. The authorities will include DEDEAT, Department of Water and Sanitation, Department of Agriculture, and Sundays River Valley Local Municipality, Cacadu District Municipality, Eastern Cape Provincial Heritage Resources Authority, Addo Biodiversity Sector Plan representative and Nature Conservation.

DENC will be consulted regularly and informed about progress during the EIA phase.

8 STAGES AT WHICH DEA&DP WILL BE CONSULTED

- (a) On submission of this Plan of Study for EIA.
- (b) On presentation of the draft and final EIR.
- (c) Draft EIR for comment to Authorities

Additional formal or informal consultation will be requested at other times in order to satisfy all environmental requirements and regulations.

9 APPENDIX A - TOR FOR SPECIALIST REPORTS

9.1 Heritage/Archaeology

INTRODUCTION

Details of the alternatives to be investigated will be made available through a layout diagram and description of each.

BASELINE STUDIES

No baseline study will be done.

LEGISLATION

Legislation would include:

The National Heritage Resources Act (NHRA) No. 25 of 1999 protects a variety of heritage resources as follows:

- Section 34: structures older than 60 years;
- Section 35: palaeontological, prehistoric and historical material (including ruins) more than 100 years old;
- Section 36: graves and human remains older than 60 years and located outside of a formal cemetery administered by a local authority; and
- Section 37: public monuments and memorials.

Following Section 2, the definitions applicable to the above protections are as follows:

- Structures: "any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith";
- Palaeontological material: "any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace";
- Archaeological material: a) "material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures"; b) "rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10m of such representation"; c) "wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic, as defined respectively in sections 3, 4 and 6 of the Maritime Zones Act, 1994 (Act No. 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation"; and d) "features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found";
- Grave: "means a place of interment and includes the contents, headstone or other marker of such a place and any other structure on or associated with such place"; and
- Public monuments and memorials: "all monuments and memorials a) "erected on land belonging to any branch of central, provincial or local government, or on land

belonging to any organisation funded by or established in terms of the legislation of such a branch of government"; or b) "which were paid for by public subscription, government funds, or a public-spirited or military organisation, and are on land belonging to any private individual."

While landscapes with cultural significance do not have a dedicated Section in the NHRA, they are protected under the definition of the National Estate (Section 3). Section 3(2)(c) and (d) list "historical settlements and townscapes" and "landscapes and natural features of cultural significance" as part of the National Estate. Furthermore, Section 3(3) describes the reasons a place or object may have cultural heritage value.

Section 38 (2a) states that if there is reason to believe that heritage resources will be affected then an impact assessment report must be submitted. This report fulfils that requirement.

For this proposed development the following is applicable:

1. Legal requirements

In terms of Section 38 (1) (c) (iii) of the National Heritage Resources Act 1999 (Act 25 of 1999), a Heritage Impact Assessment (HIA) of the proposed project is required if the footprint area of the proposed development is more than 5000m² in extent.

Section 38 (1) (a) of the Act also indicates that any person constructing a powerline, pipeline or road, or similar linear development or barrier exceeding 300m in length is required to notify the responsible heritage resources authority, who will in turn advise whether an impact assessment report is needed before development can take place.

2. Aim of the AIA

The overall purpose of the AIA is to assess the sensitivity of archaeological resources in the affected areas, to determine the potential impacts on such resources, and to avoid and/or minimize such impacts by means of management and/or mitigation measures.

The significance of archaeological resources was assessed in terms of their content and context. Attributes considered in determining significance include artefact and/or ecofact types, rarity of finds, exceptional items, organic preservation, potential for future research, density of finds and the context in which archaeological traces occur

Under the National Environmental Management Act (No. 107 of 1998; NEMA), as amended, the project is subject to an EIA. Eastern Cape Province Heritage Resource Agency (ECPHRA) and the South African Heritage Resources Agency (SAHRA for archaeology and palaeontology) are required to provide comment on the proposed project in order to facilitate final decision making by the Department Of Economic Development Environment And Tourism.

IMPACT ASSESSMENT

METHODS:

Literature survey

A survey of available literature should be carried out to assess the general heritage context into which the development would be set. This literature included published material, unpublished commercial reports and online material, including reports sourced from the South African Heritage Resources Information System (SAHRIS).

Field survey

A field survey should be done. During the survey the positions of finds should be recorded on a hand-held GPS receiver set to the WGS84 datum. Photographs should be taken at times in order to capture representative samples of both the affected heritage and the landscape setting of the proposed agricultural development.

Grading

Section 7 of the NHRA provides for the grading of heritage resources into those of National (Grade 1), Provincial (Grade 2) and Local (Grade 3) significance. Grading is intended to allow for the identification of the appropriate level of management for any given heritage resource. Grade 1 and 2 resources are intended to be managed by the national and provincial heritage resources authorities, while Grade 3 resources would be managed by the relevant local planning authority. These bodies are responsible for grading, but anyone may make recommendations for grading – something that is, at times, required in HIAs.

It is intended that the various provincial authorities formulate a system for the further detailed grading of heritage resources of local significance but this is generally yet to happen. Heritage Western Cape (2012), however, uses a system in which resources of local significance are divided into Grade 3A, 3B and 3C. These approximately equate to high, medium and medium-low local significance, while sites of low or very low significance (and generally not requiring mitigation or other interventions) are referred to as ungradeable.

TABLE OF CONTENTS

The report must be submitted in both digital and printed format and should *at least* include the following sections:

1. EXECUTIVE SUMMARY (must include at least a full summary of section 6 for transfer to the EIR)
2. INTRODUCTION AND DESCRIPTION OF STUDY
3. TERMS OF REFERENCE
4. METHODOLOGY
5. RESULTS/FINDINGS
6. ASSESSMENT OF IMPACTS
 - 6.1 Comparative analysis (use criteria for assessment as described above)
 - (i) cumulative impacts;
 - (ii) the nature of the impact;
 - (iii) the extent and duration of the impact;
 - (iv) the probability of the impact occurring;
 - (v) the degree to which the impact can be reversed;
 - (vi) the degree to which the impact may cause irreplaceable loss of resources; and
 - (vii) the degree to which the impact can be mitigated;
 - 6.2 a description of any assumptions, uncertainties and gaps in knowledge;

- 6.3 an environmental impact statement which contains –
- ◇ a summary of the key findings of the environmental impact assessment; and
 - ◇ a comparative assessment of the positive and negative implications of the proposed activity and identified alternatives;
7. DISCUSSION (including management recommendations for construction and operation phases; response to I&AP comments)
 8. MANAGEMENT PLANS
 9. CONCLUSIONS (must include summary tables as described in section 5 of PoSfEIA)
 10. RECOMMENDATIONS
 11. APPENDICES (including impact assessment tables)

IMPACT Please refer to details in Box 16		
Nature of impact		
STAGE	CONSTRUCTION PHASE	OPERATION PHASE
Extent		
Duration		
Intensity or magnitude		
Probability		
Significance		
Confidence		
Accumulative Impact		
Legal aspects		
Mitigation measures		
Level of significance after mitigation		
EMP requirements		
Discussion		

9.2 Botanical

INTRODUCTION

Details of the alternatives to be investigated will be made available through a layout diagram and description of each.

BASELINE STUDIES

The Baseline studies have been completed and should include at least the following:

- Describe the broad ecological characteristics of the site and its surrounds in terms of any mapped spatial components of ecological processes and/or patchiness, patch size, relative isolation of patches, connectivity, corridors, disturbance regimes, ecotones, buffering, viability, etc.

- In terms of biodiversity pattern, identify or describe:

Community and ecosystem level

- The main vegetation, its aerial extent and interaction with neighbouring types, soils or topography;
- The types of plant communities that occur in the vicinity of the site
- Threatened or vulnerable ecosystems (see sources listed in box 4).

Species level

1. Red Data Book species (give location if possible using GPS)
2. The viability of and estimated population size of the RDB species that are present (include the degree of confidence in prediction based on availability of information and specialist knowledge, i.e. High=70-100% confident, Medium 40-70% confident, low 0-40% confident)
3. The likelihood of other RDB species, or species of conservation concern, occurring in the vicinity (include degree of confidence).

Other pattern issues

- Any significant landscape features or rare or important vegetation associations such as seasonal wetlands, alluvium, seeps, quartz patches or salt marshes in the vicinity.
- The extent of alien plant cover of the site, and whether the infestation is the result of prior soil disturbance such as ploughing or quarrying (alien cover resulting from disturbance is generally more difficult to restore than infestation of undisturbed sites).
- The condition of the site in terms of current or previous land uses.

- In terms of biodiversity process, identify or describe:

- The key ecological "drivers" of ecosystems on the site and in the vicinity, such as fire.
- Any mapped spatial component of an ecological process that may occur at the site or in its vicinity (i.e. *corridors* such as watercourses, upland-lowland gradients, migration routes, coastal linkages or inland-trending dunes, and *vegetation*

boundaries such as edaphic interfaces, upland-lowland interfaces or biome boundaries)

- Any possible changes in key processes, e.g. increased fire frequency or drainage/artificial recharge of aquatic systems.
- Would the conservation of the site lead to greater viability of the adjacent ecosystem by securing any of the functional factors listed in the first bullet?
- Would the site or neighbouring properties potentially contribute to meeting regional conservation targets for both biodiversity pattern and ecological processes?

LEGISLATION

Legislation would include:

Box 4 : <i>Legislation of relevance to the biodiversity specialist</i>¹⁰
<p>The particular context of the EIA, nature of the proposed project and of the receiving environment will determine which – if any – of the following are relevant.</p> <p>At an international level:</p> <ul style="list-style-type: none"> • <i>Convention on Biological Diversity</i>; • <i>The Ramsar Convention (on wetlands of international importance especially as waterfowl habitat)</i>; • <i>The Bonn Convention (on conservation of migratory species of wild animals)</i>; • <i>The World Heritage Convention</i>; • <i>The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</i>. <p>At a regional level, the Action Plan of the Environmental Initiative of NEPAD (the New Partnership for Africa's Development), 2003, advocates sustainable development and associated conservation and wise use of biodiversity.</p>
<p>At a national level:</p> <ul style="list-style-type: none"> • <i>The National Environmental Management (NEMA) (Act No. 107 of 1998)</i>; • <i>The National Environmental Management Protected Areas (Act No. 57 of 2003)</i>; • <i>The National Environmental Management Biodiversity (Act No. 10 of 2004)</i>; • <i>Environment Conservation Act (Act No. 73 of 1989) and associated EIA Regulations [to be replaced by regulations i.t.o. NEMA]</i>; • <i>Sea Birds and Seals Protection Act (Act No. 46 of 1973)</i>; • <i>Marine Living Resources Act (Act No. 18 of 1998)</i>; • <i>Mountain Catchment Areas Act (Act No. 63 of 1970)</i>; • <i>National Heritage Resources Act (Act No. 25 of 1999), and provincial regulations</i>; • <i>National Water Act (Act No. 36 of 1998)</i>; • <i>Conservation of Agricultural Resources Act (Act No. 43 of 1983)</i>; • <i>National Forests Act (Act No. 84 of 1998)</i>; • <i>Lake Areas Development Act (Act No. 39 of 1975)</i>; • <i>Sea Shore Act (Act No. 21 of 1935)</i>; • <i>Atmospheric Pollution Prevention Act (Act No. 45 of 1965)</i>. <p>At provincial level:</p> <ul style="list-style-type: none"> • <i>Western Cape Nature Conservation Laws Amendment Act (Act No. 3 of 2000)</i>; • <i>The Provincial Spatial Development Framework (PSDF) in terms of the Municipal Systems Act (Act No. 32 of 2000)</i>; <p><i>Spatial Development Frameworks (SDFs) at municipal level, in terms of the Municipal Systems Act 32 of 2000. The preparation of an SDF draws on bioregional planning principles.</i></p>

IMPACT ASSESSMENT

To determine the current status and trends in biodiversity key sources of biodiversity must be assessed. Key sources are listed below.

Box 13 : Key sources of biodiversity information
<ul style="list-style-type: none">▪ The National Spatial Biodiversity Assessment³⁶ (NSBA) should be a 'first stop' reference for any biodiversity assessment, as should the NBSAP which prioritises areas for action. The NSBA gives the national ecosystem status (i.e. critically endangered, endangered, vulnerable or not currently threatened) for terrestrial, river, marine and estuarine ecosystems; wetlands are to be included in future.▪ The new South African vegetation map (South African National Biodiversity Institute³⁷). The NSBA gives the national ecosystem status of vegetation types in this map.▪ The Conservation Planning Unit of CapeNature (http://cpu.uwc.ac.za/home), which gives information on:<ul style="list-style-type: none">➢ Systematic biodiversity planning outputs, at broad and/or fine-scale spatial scales (Cape Floristic Region: CAPE, Succulent Karoo: SKEP, Subtropical Thicket: STEP, Cape Lowlands Renosterveld Project), plus guides for users³⁸. These plans provide information on both important pattern and process corridors. Depending on their scale, they can be used as a trigger of potential biodiversity significance or, at fine-scale, to inform an EIA.➢ Regional biodiversity corridor initiatives (e.g. Greater Cederberg Biodiversity Corridor initiative, Gouritz Initiative). These corridors 'capture' both pattern and process.▪ CapeNature's State of Biodiversity : 2000 report [www.capenature.org.za/know_how/html/sobintro.html] describes critical habitats for reptiles and amphibians, birds and mammals in the Western Cape.▪ Fynbos Forum's Ecosystem-specific Guidelines (Box 14).▪ Information on threatened ecosystems and species held by CapeNature's Land Use Advisory Unit and regional ecologists.
<ul style="list-style-type: none">▪ The biodiversity expertise within the Scientific Services section of CapeNature for information on specific taxa, as relevant (e.g. invertebrates, frogs, fishes, mammals, birds)▪ Additional information (e.g. Protea Atlas, Frog Atlas and Bird Atlas) held by research institutions who carry out work on biodiversity, such as universities, technikons and the National Biodiversity Institute, the South African Natural History Museum in Cape Town (various specialists), the Plant Protection Research Institute in Pretoria (arthropod and fungi specialists).▪ South African Red Data Books, provided that these are current (e.g. Red Data Book for Mammals, produced by the Endangered Wildlife Trust 2004), IUCN's Red List, and other protected or threatened species lists (e.g. in terms of the Biodiversity Act).▪ The River Health Programme gives information on the ecological state of certain river systems [www.csir.co.za/rivercons/related.html].▪ Provincial or local State of Environment Report.

The report must specifically address the following:

- a) Species level (Vegetation):
 - i. A comprehensive species list of each vegetation unit, with an indication of the dominant or most abundant species.
 - ii. Each vegetation unit should be assessed individually.

- iii. The quality of each vegetation unit should also be assessed with reference to the number and type of exotic woody plants and weeds occurring in each unit. The level of disturbances, such as trampling, grazing and erosion should also be recorded.

(b) Mitigation actions (Vegetation):

- i. Mitigate impact by reducing footprint in terms of pattern and process.
- ii. Mitigation must be functional in terms of ecosystem processes.

(c) The Biodiversity Impact Assessment (Vegetation) report must confirm the level of significance (low, medium or high) of the impact on:

- i. Threatened ecosystems
- ii. Special habitats/threatened or rare species
- iii. Habitat in the ecological corridors of vegetation boundaries

(d) The significance rating in the Biodiversity Impact Assessment (Vegetation) report must be linked to some threshold and meaningful context.

(e) The Biodiversity Impact Assessment (Vegetation) report must also report on gaps in information and uncertainty.

A report is required that describes and assesses the impacts of the alternatives that were identified (use table at the end of this document). The impact assessment will need to consider the potential negative as well as positive impacts that would result from the proposed development and should include mitigation measures to reduce the negative impacts as well as measures that would enhance the positive impacts. Please include in the report all aspects that will impact on the vegetation (e.g. fire management) together with future management recommendations that would be included in the Environmental Management Plan.

Together with the above also provide a response to the I&AP comments as captured in the Scoping Report.

CRITERIA FOR ASSESSMENT

The criteria for assessment of impacts are as follows (NEMA Regulations 32(k))

- (i) cumulative impacts;
- (ii) the nature of the impact;
- (iii) the extent and duration of the impact;
- (iv) the probability of the impact occurring;
- (v) the degree to which the impact can be reversed;
- (vi) the degree to which the impact may cause irreplaceable loss of resources;
and
- (vii) the degree to which the impact can be mitigated;

The following can be used as a guide when assessing impacts.

The criteria in the box below must be used for the assessment of impacts. Although not listed, legal aspects must be added.

Box 16: Criteria used for the assessment of impacts

Nature of the impact – A description of positive or negative effect of the project on the affected environment, or *vice versa*. This description should include who or what would be affected, and how.

Extent - the impact could:

- be site – specific;
- be limited to the site and its immediate surroundings;
- have an impact on the *region* (e.g. if communities rely on biodiversity);
- have an impact on a *national* scale (e.g. national biodiversity conservation targets);
- have an impact across *international* borders (e.g. where catchments cross international border, international conventions are concerned, or migratory species).

Duration – It is important to indicate whether or not the lifetime of the impact will be:

- *short term* (e.g. during the construction phase);
- *medium term* (e.g. during part or all of the operational phase);
- *long term* (e.g. beyond the operational phase, but not permanently);
- *permanent* (where the impact is for all intents and purposes irreversible. An irreversible negative impact may also result in irreplaceable loss of natural capital or biodiversity, if it were to result in extinction or loss of a species or ecosystem); or
- *discontinuous or intermittent* (where the impact may only occur during specific climatic conditions or during a particular season of the year).

Intensity or magnitude – The size of the impact (if positive) or its severity (if negative):

- *low*, where biodiversity is negligibly affected or where the impact is so low that remedial action is not required;
- *medium*, where biodiversity pattern, process and/or ecosystem services are altered, but not severely affected, and the impact can be remedied successfully; and
- *high*, where pattern, process and/or ecosystem services would be substantially (i.e. to a very large degree) affected. If a negative impact, could lead to irreplaceable loss of biodiversity and/or unacceptable consequences for human wellbeing.

Probability – Should describe the likelihood of the impact actually occurring indicated as:

- *improbable*, where the possibility of the impact is very low either because of design or historic experience;
- *probable*, where there is a distinct possibility that the impact will occur;
- *highly probable*, where it is most likely that the impact will occur; or
- *definite*, where the impact will occur regardless of any prevention measures.

Significance – The significance of impacts can be determined through a synthesis of the assessment criteria. Significance can be described as:

- *low*, where it would have negligible effect on biodiversity, and on the decision;
- *medium*, where it would have a moderate effect on biodiversity, and should influence the decision;
- *high*, where it would have, or there would be a high risk of, a large effect on biodiversity. These impacts should have a major influence on the decision;
- *very high*, where it would have, or there would be a high risk of, an irreversible negative impact on biodiversity and irreplaceable loss of natural capital or a major positive effect. Impacts of very high significance should be a central factor in decision-making.

Confidence – The level of confidence in predicting the impact can be described as:

- *low*, where there is little confidence in the prediction, due to inherent uncertainty about the likely response of the receiving ecosystem, or inadequate information;
- *medium*, where there is a moderate level of confidence in the prediction; or
- *high*, where the impact can be predicted with a high level of confidence.

Source: Adapted from criteria used by the Department of Environmental Affairs and Tourism, 1998.

TABLE OF CONTENTS

The report must be submitted in both digital and printed format and should *at least* include the following sections:

1. EXECUTIVE SUMMARY (must include at least a full summary of section 6 for transfer to the EIR)
2. INTRODUCTION AND DESCRIPTION OF STUDY
3. TERMS OF REFERENCE
4. METHODOLOGY
5. RESULTS/FINDINGS
6. ASSESSMENT OF IMPACTS
 - 6.1 Comparative analysis (use criteria for assessment as described above)
 - (i) cumulative impacts;
 - (ii) the nature of the impact;
 - (iii) the extent and duration of the impact;
 - (iv) the probability of the impact occurring;
 - (v) the degree to which the impact can be reversed;
 - (vi) the degree to which the impact may cause irreplaceable loss of resources; and
 - (vii) the degree to which the impact can be mitigated;
 - 6.2 a description of any assumptions, uncertainties and gaps in knowledge;
 - 6.3 an environmental impact statement which contains –
 - a summary of the key findings of the environmental impact assessment; and
 - a comparative assessment of the positive and negative implications of the proposed activity and identified alternatives;
7. DISCUSSION (including management recommendations for construction and operation phases; response to I&AP comments)
8. CONSERVATION MANAGEMENT PLANS AND PLANT LISTS
9. CONCLUSIONS (must include summary tables as described in section 5 of PoSfEIA)
10. RECOMMENDATIONS
11. APPENDICES (including impact assessment tables)

IMPACT Please refer to details in Box 16		
Nature of impact		
STAGE	CONSTRUCTION PHASE	OPERATION PHASE
Extent		
Duration		
Intensity or magnitude		
Probability		
Significance		
Confidence		
Accumulative Impact		
Legal aspects		
Mitigation measures		
Level of significance after mitigation		
EMP requirements		
Discussion		

9.3 Water Use License Application

The purpose of the National Water Act is to provide a framework for the equitable allocation and sustainable management of water resources. Both surface and groundwater sources are redefined by the Act as national resources which cannot be owned by any individual, and rights to which are not automatically coupled to land rights, but for which prospective users must apply for authorisation and register as users. The National Water Act also provides for measures to prevent, control and remedy the pollution of surface and groundwater sources.

An application for a license in terms of the National Water Act, 1998 is made by the developer, Oseiland Boerderye for the transfer water rights, taking of water from the Orange River, the water usages is summarised as the follows:

<i>(a) taking water from a water resource;</i>	Transfer of water rights
--	--------------------------

All the necessary information will be included in the WULA as part of the EIA phase of the application.

10 TOR FOR REPORTS

Reports, other than impact studies, that will complete the suite of reports required for the EIR are:

Note: Each report must include a section with response(s) to relevant comments (see Appendix 11).

The following EIA specialist reports are required (see Appendix A in section 9 for Terms of Reference):

Specialist reports

- Heritage/archaeology assessment
- Vegetation Report
- Socio-Economic summary report
- Water Use License Application

Other reports

- EMP

11 APPENDIX C – COMMENTS FROM SCOPING

As per the Final Scoping Report, see section 12.3.

12 APPENDIX D – COMMENTS FROM DEPARTMENT OF ECONOMIC DEVELOPMENT ENVIRONMENT AND TOURISM

Will be inserted when available

12 Other

12.1 Curriculum Vitae

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Date of birth	25 March 1951		
Qualifications	B.Sc. B. Eng (Civil) M Eng (Irrigation) B Hons. (B&A) MBA	University of Stellenbosch University of Stellenbosch University of Stellenbosch University of Stellenbosch	1973 1977 1992 1993
Special courses	<ul style="list-style-type: none"> ● Project Management (5/1990), GROMAN, Stellenbosch; ● Project Management Diploma (2-7/91), Damelin Management School, Cape Town; ● Time Management (7/91), FSA-Contact group, Cape Town; ● Advanced Project Management, GROMAN (9/91), Stellenbosch; ● Environmental Auditing (11/93), Inst. of Environmental Assessment, Lincoln, England; ● SPIN Complex Selling (2/94), Sales Productivity Associates, Johannesburg; ● Presentation (3/94), Whitehead Morris, Johannesburg; ● Public participation - Participlan (10/94), CSIR/Univ. Cape Town 		
Professional membership	Professional engineer, member of the Engineering Council of South Africa Member of the South African Institute of Civil Engineers Member of International Association for Impact Assessment (South Africa)		
Career	<p>Since 1997 1997 1995 - 1996 1993 - 1994 1992 1982 - 1991 1981 1979 - 1980 1978 1974 - 1977</p>	<p>Own consultancy CSIR, Environmentek; Provincial Business Development Manager Gulf Petrochemical Services LLC, Business Development Engineer (Sultanate of Oman & UAE) and CSIR Marketing Manager Middle East (Sultanate of Oman, UAE & Qatar). CSIR, Ematek, Coastal Development Programme; Marketing Manager Study for MBA CSIR, Ematek, Coastal Development Programme; Project Manager Municipality of Somerset West; Deputy Town Engineer Municipality of Kulls River; Town Engineer Municipality of Klerksdorp; Senior Engineer (water) Department of Water Affairs; Assistant Engineer</p>	
Current position	Owner of Pieter Badenhorst Professional Services CC. As a private consultant now provide consultancy services in Environmental/coastal Management, Environmental Engineering, Public Participation and Project Management.		
Professional experience	<p>39 years experience in civil, municipal and environmental engineering as well as business development. Civil experience in heavy construction with Department of Water Affairs. Municipal experience includes Senior Engineer, Klerksdorp, Town Engineer of Kulls River and Deputy Town Engineer of Somerset West. Nearly 16 years at CSIR in environmental management (estuarine and coastal), business management, coastal engineering and project management. Work and lived two years in Middle East working in business development, project management for CSIR contracts, tender preparation and environmental management advice. Have extensively traveled the coastlines of Australia and USA to study coastal management. Other overseas visits were undertaken to UK, Netherlands and Australia to investigate commercialisation of CSIR products and general business opportunities.</p> <p>Now mainly involved with environmental studies and management. Have produced various technology research reports for CSIR. The following projects were undertaken for DEAT: a Coastal Management Technical Guide; project managed the Adopt A Beach and Interpretive Signage projects as well as public participation components; initiated and implemented the Blue Flag campaign in South Africa. A number of impact studies were/are undertaken for various clients including major developments with/without golf courses and eco estates. Produced various Scoping and Environmental Impact Reports, Environmental Management Plans and an Environmental Management Framework. Act as Environmental Control Officer for many developments including Thesen Islands Canal development (Knysna), Pezula Private Estate development (Knysna), George Mall development, Leisure Isle Boat Club upgrade (Knysna), Breakwater Bay (George), St Helena Bay development and various building sites. Have undertaken a number of asset assessments for Municipalities.</p> <p>Presented a third year course in Coastal Management at Cape Technikon.</p>		
Publications/ Contracts (A full list is available on request)	<ul style="list-style-type: none"> ● Scoping and Environmental Impact reports. ● Environmental Management Plans –construction and operation ● Basic Assessment Reports ● S24G Applications ● Waste License Applications ● Water Use License Applications ● Quarry applications/EMPRs ● Contract reports on coastal and estuarine environmental management, coastal engineering and monitoring (including a beach monitoring project along the KZN coastline) and various reports on implementation of the Blue Flag campaign. ● Contract reports in business management include market research and technology requirements (environment, food and textile/clothing industries). ● Publications include CZM Technical Guide, CZM Guidelines and Coastal Processes. Research publications on sedimentation in estuaries and low-level environmental monitoring techniques. ● Formed part of the Estuarine and Coastal Unit (ECRU) team that compiled the "Estuaries of the Cape" series. ● Formed part of the team that compiled the Policy and Principles & Objectives for Coastal Zone Management in the RSA – For Council of the Environment. ● Formed part of the team that developed Norms and Standards for inclusion into NEMA. ● Feasibility studies for Department of Environment Affairs & Tourism and Department of Water Affairs. ● EIA Review for DEAT on proposed Cape Town Harbour expansion ● Member of team – SA Wetland audit for SANBI 		

Helene Botha

Nationality	South African		
Date of birth	12 November 1991		
Qualifications	B.Sc. Degree (Zoology) B.Sc. Hons. (Zoology) Masters Degree in Environmental Management	University of the Free State - Bloemfontein University of the Free State - Bloemfontein North West University – Potchefstroom	2012 2013 2016- currently
Special courses	None additional to the above.		
Professional membership	None		
Career	2015 - current 2013	Pieter Badenhorst Professional Services - Wellington Research and teaching assistant – Department of Zoology and Entomology, UFS	
Current position	Environmental Consultant at Pieter Badenhorst Professional Services CC. As a private consultant now provide consultancy services in Environmental Management, Public Participation and Project Management.		
Professional experience	Currently a consultant in environmental studies and management. This include producing various Basic Assessment, Scoping and Environmental Impact Reports, Environmental Management Plans, Water use licenses and as an Environmental Control Officer for many developments.		
Publications/ Contracts (A full list is available on request)	<ul style="list-style-type: none"> ● Projects in process ○ Terra Nominees Bulk storage and transport of ore ○ Oranjevis Dieseltank Decommissioning and Installation ○ Glencairn Beach and Rail Way Remedial Measures ○ Bonniebrook Dam S24G ○ Loxtonia dam expansion ○ Babylonstoren Abattoir ○ Flaminkvlei Chicken houses expansion ○ Klein Babylonstoren Tourism development ○ Moerasrivier Chicken Houses Development ○ Colesberg Agricultural Development ○ Wade Badenhorst WULA ○ JP Le Roux WULA ○ Oseiland WULA 		

12.2 EAP declaration