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

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10

Date: June 2011

Project: Cultivation of virgin soil, Farm De Goree, Portion 19 of Farm 100, Robertson

Applicant: De Goree (Pty) Ltd

Consultants: Boland Environmental Consultants CC
PO Box 250, Worcester, 6849
Tel / Fax 023 347 0336
work@BolandEnviro.co.za

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| Appendix F: | Public participation information: including a copy of the register of interested and affected parties, the comments and responses report, proof of notices, advertisements and any other public participation information as required in Section C above. | ✓ |
| Appendix G: | Specialist Report(s) | ✓ |
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DECLARATIONS ........................................................................................................................................................................... 67
Kindly note that:

1. This Basic Assessment Report is the standard report required by DEA&DP in terms of the EIA Regulations, 2010 and must be completed for all Basic Assessment applications.


3. This report is current as of 2 August 2010. It is the responsibility of the Applicant / EAP to ascertain whether subsequent versions of the report have been published or produced by the competent authority.

4. The required information must be typed within the spaces provided in the report. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. It is in the form of a table that will expand as each space is filled with typing.

5. Incomplete reports will be rejected. A rejected report may be amended and resubmitted.

6. The use of “not applicable” in the report must be done with circumspection. Where it is used in respect of material information that is required by the Department for assessing the application, this may result in the rejection of the report as provided for in the regulations.

7. While the different sections of the report only provide space for provision of information related to one alternative, if more than one feasible and reasonable alternative is considered, the relevant section must be copied and completed for each alternative.

8. Unless protected by law all information contained in, and attached to this report, will become public information on receipt by the competent authority. If information is not submitted with this report due to such information being protected by law, the applicant and/or EAP must declare such non-disclosure and provide the reasons for the belief that the information is protected.

9. This report must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. No faxed or e-mailed reports will be accepted. Please note that for waste management licence applications, this report must be submitted for the attention of the Department’s Waste Management Directorate (tel: 021-483-2756 and fax: 021-483-4425) at the same postal address as the Cape Town Office Region A.

10. Unless indicated otherwise, two electronic copies (CD/DVD) and three hard copies of this report must be submitted to the Department.
FINAL BASIC ASSESSMENT REPORT
CULTIVATION OF VIRGIN SOIL, FARM DE GOREE, PORTION 19 OF FARM 100, ROBERTSON

View the Department’s website at http://www.capecitizens.gov.za/eadp for the latest version of this document.

DEPARTMENTAL REFERENCE NUMBER(S)

<table>
<thead>
<tr>
<th>File reference number (EIA):</th>
<th>E12/2/4/1-B1/11-1025/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>File reference number (Waste):</td>
<td>N/A</td>
</tr>
<tr>
<td>File reference number (Other):</td>
<td>N/A</td>
</tr>
</tbody>
</table>

PROJECT TITLE

Cultivation of virgin soil, De Goree, Robertson

DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

<table>
<thead>
<tr>
<th>Environmental Assessment Practitioner (EAP):</th>
<th>Boland Environmental Consultants CC (Boland Enviro CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact person:</td>
<td>Project Practitioner: Mrs Johlene Krige</td>
</tr>
<tr>
<td></td>
<td>Director: Mr Nik Wullschleger</td>
</tr>
<tr>
<td>Postal address:</td>
<td>PO Box 250</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(023) 347 0336</td>
</tr>
<tr>
<td>E-mail:</td>
<td><a href="mailto:johlene@bolandenviro.co.za">johlene@bolandenviro.co.za</a></td>
</tr>
<tr>
<td>Fax:</td>
<td>(023) 347 0336</td>
</tr>
<tr>
<td>EAP Qualifications</td>
<td>Project Practitioner: Mrs Johlene Krige (BSc Biodiversity and Ecology US, BSc Hons Botany US, MSc Botany US)</td>
</tr>
<tr>
<td></td>
<td>Director: Mr Nik Wullschleger (B.Sc. UCT, B.Sc Hons Geology UCT)</td>
</tr>
<tr>
<td>EAP Registrations/Associations</td>
<td>Project Practitioner: Mrs Johlene Krige (IAIAsa)</td>
</tr>
<tr>
<td></td>
<td>Director: Mr Nik Wullschleger (Pr.Sci.Nat, IAIAsa)</td>
</tr>
</tbody>
</table>

Details of the EAP’s expertise to carry out Basic Assessment procedures

Project Practitioner: Mrs Johlene Krige
Qualifications: BSc Biodiversity and Ecology US, BSc Hons Botany US, MSc Botany US
EAP Expertise: 1 year experience in facilitation of EIA processes and Botanical Assessments

Company Director: Mr Nik Wullschleger
Qualifications: B.Sc, Climate and Ocean Science (UCT), B.Sc Hons Geology (UCT)
EAP Expertise: 6 years experience in facilitation of EIA processes, 14 years experience as resource management consultant.
EXECUTIVE SUMMARY OF THE CONTENT OF THE BASIC ASSESSMENT REPORT:

Application:
This Application is for Environmental Authorization for the clearing of natural vegetation for the cultivation of approximately 30 ha additional vineyards on farm De Goree No 100, Portion 19, Robertson. Existing infrastructure will be utilized by the proposed development.

Property details and rationale for the development:
De Goree Farming is a land reform project. The 138 ha farm is 52% BBBEE owned by 116 individuals (of whom 52 are woman) and 48% is owned by Van Loveren PTY (LTD). De Goree Farm presently has 49 ha under vineyards, which were aimed to be enlarged over time as more water was received. An increased vineyard footprint will significantly increase the agricultural potential (and economic viability) of this project.

Site:
The target area identified for cultivation consists of four land parcels (30 ha in total). The site predominantly consists of an untransformed area with sections used for agriculture (grazing). A small section is transformed into a sand borrow pit. A railway line passes through the proposed site and a small farm dam is located on site. Both the farm dam and railway line will be excluded from the development.

Receiving environment:
The site is located in the Central Breede River Valley, approximately 7 km west of Robertson. The proposed development is in line with the surrounding land uses which are predominantly agricultural related (vineyards, orchards, farm dams and workers housing). The target areas for cultivation consist of Worcester Renosterveld Karoo vegetation which is considered least threatened. Parts of the target areas do however fall within a terrestrial Critical Biodiversity Area (CBA).

Consideration of alternatives:
Only one site alternative is available for consideration. Alternative sites would require the Applicant to purchase additional land.

The preferred and only activity alternative is to clear the identified areas which comprise natural vegetation for the cultivation of additional vineyards.

Three layout alternative layouts were identified.
1. The Applicants preferred layout (A1) is based on the most practical and economic vineyard block design including all remaining areas on the Property that can be cultivated.
2. An alternative layout is proposed to limit the proposed development to disturbed areas as far as possible and to maintain a larger area that forms part of a CBA along the east of the Property.
3. A third layout (EAPs preferred layout) is proposed to limit fragmentation of natural areas in the northern section of the Property (north of the railway line). The eastern sections are included in this layout plan as it already shows signs of fragmentation (due to quarry sites and existing cultivated areas) and disturbance.

Significant impacts:
The most significant negative impacts associated with the proposed development can be ascribed to the clearing of natural vegetation, more specifically the loss of natural habitat and the reduction in a CBA. All other impacts are considered to be Medium-Low or Low. Mitigation measures are proposed which will reduce most of these impacts to Low. Significant positive impacts relate to employment opportunities and an increased agricultural potential of the Property.

Specialist studies:
Specialist studies conducted include an Archaeological Impact Assessment and a Botanical/Ecological Impact Assessment on the proposed development site. Additionally, a soil potential study was conducted as requested by the Western Cape Department of Agriculture.

Public Participation:
The draft Basic Assessment Report (this report) was released for a 40 days commenting period (31 March – 9 May 2011) to all potential Interested and Affected parties and Commenting Authorities. All comments received are incorporated into the final reports which were submitted to registered I&APs for a further 21 days commenting period (25 August – 14 September 2011).
SECTION A: ACTIVITY INFORMATION

1. PROJECT DESCRIPTION

(a) Is the project a new development?  YES | NO

(b) Provide a detailed description of the development project and associated infrastructure.

De Goree (Pty) Ltd, hereafter referred to as the Applicant, intends clear an additional 30 ha of natural vegetation on Farm 100/19, De Goree (hereafter referred to as the Property) for the cultivation of new vineyards.

The entire property is 138 ha in extent of which approximately 49 ha is already under cultivation. Existing roads and infrastructure will be utilized by the proposed development.

(c) List all the activities assessed during the Basic Assessment process:

<table>
<thead>
<tr>
<th>GN No. R. 544 Activity No(s):</th>
<th>Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 544)</th>
<th>Describe the portion of the development as per the project description that relates to the applicable listed activity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GN No. R. 546 Activity No(s):</th>
<th>Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 546)</th>
<th>Describe the portion of the development as per the project description that relates to the applicable listed activity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. (a) Critical biodiversity areas and ecological support areas as identified in systematic biodiversity plans adopted by the competent authority. (b) ...</td>
<td>Approximately 16 ha of the proposed 30 ha area intended for cultivation fall within a terrestrial Critical Biodiversity Area, identified by the CAPE fine-scale biodiversity planning project. Much of these areas are disturbed and fragmented.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GN No. R. 545 Activity No(s):</th>
<th>If permission was granted in terms of Regulation 20, describe the relevant Scoping and EIA Activity(ies) in writing as per Listing Notice 2 (GN No. R. 545)</th>
<th>Describe the portion of the development as per the project description that relates to the applicable listed activity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
<td></td>
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</tbody>
</table>

Waste management activities in terms of the NEM: WA (Government Gazette No. 32368):

<table>
<thead>
<tr>
<th>GN No. 718 - Category A Activity No(s):</th>
<th>Describe the relevant Category A waste management activity in writing.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10
Please note: If any waste management activities are applicable, the Listed Waste Management Activities Additional Information Annexure must be completed and attached to this Basic Assessment Report as Appendix I.

If the application is also for waste management activities as per Category B and permission was granted to subject the application to Basic Assessment, also indicate the applicable Category B activities:

<table>
<thead>
<tr>
<th>GN No. 718 – Category B Activity No(s):</th>
<th>Describe the relevant Category B waste management activity in writing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
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</tbody>
</table>

Atmospheric emission activities in terms of the NEM: AQA (Government Gazette No. 33064):

<table>
<thead>
<tr>
<th>GN No. 248 Activity No(s):</th>
<th>Describe the relevant atmospheric emission activity in writing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td></td>
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</tbody>
</table>

(d) Please provide details of all components of the proposed project and attach diagrams (e.g. architectural drawings or perspectives, engineering drawings, process flow charts etc.).

Buildings

<table>
<thead>
<tr>
<th>Provide brief description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proposed development does not involve the construction of any new buildings.</td>
</tr>
</tbody>
</table>

Infrastructure (e.g. roads, power and water supply/storage)

<table>
<thead>
<tr>
<th>Provide brief description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing roads and infrastructure will be utilized by the proposed development. Power is already supplied to the property and an existing water pipeline crosses the property.</td>
</tr>
</tbody>
</table>

Processing activities (e.g. manufacturing, storage, distribution)

<table>
<thead>
<tr>
<th>Provide brief description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Storage facilities for raw materials and products (e.g. volume and substances to be stored)

<table>
<thead>
<tr>
<th>Provide brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Storage and treatment facilities for solid waste and effluent generated by the project

<table>
<thead>
<tr>
<th>Provide brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Other activities (e.g. water abstraction activities, crop planting activities)

<table>
<thead>
<tr>
<th>Provide brief description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vineyards will be established on the newly cleared land.</td>
</tr>
</tbody>
</table>

2. PHYSICAL SIZE OF THE ACTIVITY

Size of the property:

<table>
<thead>
<tr>
<th>Size of the property:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 380 000 m²</td>
</tr>
</tbody>
</table>

Size of the facility:

<table>
<thead>
<tr>
<th>Size of the facility:</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 000 m²</td>
</tr>
</tbody>
</table>
3. SITE ACCESS

(a) Is there an existing access road? YES | NO

(b) If no, what is the distance over which a new access road will be built? m

(c) Describe the type of access road planned:

Not Applicable. The Property is accessed from Divisional Road No. 1364 (Goree/Riverside) which crosses the Property.

Please Note: indicate the position of the proposed access road on the site plan.

4. DESCRIPTION OF THE PROPERTY ON WHICH THE ACTIVITY IS TO BE UNDERTAKEN AND THE LOCATION OF THE ACTIVITY ON THE PROPERTY

(a) Provide a description of the property on which the activity is to be undertaken and the location of the activity on the property.

Farm De Goree No. 100/19 is 138 ha in extent.

The western portion of the property (approximately 50 ha) is already under cultivation with vineyards. This cultivated portion is bordered by Divisional Road No. 1364 (Goree/Riverside) on the south and by the Vink River to the west and is crossed by a water furrow.

The eastern half of the property is currently undeveloped and consists of natural Worcester Renosterveld Karoo vegetation which is considered Least Threatened (see Appendix G2). This section of the property is traversed by existing farm tracks. The Goree/Riverside road (from which the Property is accessed) and the railway line cross through this portion of the property. The property contains all the infrastructure (roads, water transfer and storage, power supply) required for the cultivation of additional vineyards.

The proposed activity will be located on the eastern half of the property on flat, arable areas (refer to Site plan - Appendix B).

(b) Please provide a location map (see below) as Appendix A to this report which shows the location of the property and the location of the activity on the property; as well as a site map (see below) as Appendix B to this report; and if applicable all alternative properties and locations.

Locality map:

The scale of the locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road names or numbers of all the major roads as well as the roads that provide access to the site(s);
- a north arrow;
- a legend;
- the prevailing wind direction (during November to April and during May to October); and
- GPS co-ordinates (indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection).
Detailed site plan(s) must be prepared for each alternative site or alternative activity. The site plan must contain or conform to the following:

- The detailed site plan must be at a scale preferably at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan.
- The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.
- The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be indicated on the site plan.
- The position of each element of the application as well as any other structures on the site must be indicated on the site plan.
- Services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development must be indicated on the site plan.
- Servitudes indicating the purpose of the servitude must be indicated on the site plan.
- Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to):
  - Rivers.
  - Flood lines (i.e. 1:10, 1:50, year and 32 meter set back line from the banks of a river/stream).
  - Ridges.
  - Cultural and historical features.
  - Areas with indigenous vegetation (even if it is degraded or infested with alien species).
- Whenever the slope of the site exceeds 1:10, then a contour map of the site must be submitted.

(c) For a linear activity, please also provide a description of the route.

<table>
<thead>
<tr>
<th>Latitude (S):</th>
<th>Longitude (E):</th>
</tr>
</thead>
<tbody>
<tr>
<td>33° 48' 45.97&quot;</td>
<td>19° 48' 28.00&quot;</td>
</tr>
</tbody>
</table>

(d) or:

<table>
<thead>
<tr>
<th>For linear activities:</th>
<th>Latitude (S):</th>
<th>Longitude (E):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting point of the activity</td>
<td>○  &quot; &quot; ○  &quot; &quot;</td>
<td>○  &quot; &quot; ○  &quot; &quot;</td>
</tr>
<tr>
<td>Middle point of the activity</td>
<td>○  &quot; &quot; ○  &quot; &quot;</td>
<td>○  &quot; &quot; ○  &quot; &quot;</td>
</tr>
<tr>
<td>End point of the activity</td>
<td>○  &quot; &quot; ○  &quot; &quot;</td>
<td>○  &quot; &quot; ○  &quot; &quot;</td>
</tr>
</tbody>
</table>

Please Note: For linear activities that are longer than 500m, please provide and addendum with co-ordinates taken every 100 meters along the route.

5. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken of the site and from the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached as Appendix C to this report. It should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.
SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Site/Area Description

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

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites (highlight the appropriate box).

| Flat | Flatter than 1:10 | 1:10 – 1:4 | Steeper than 1:4 |

2. LOCATION IN LANDSCAPE

(a) Indicate the landform(s) that best describes the site (highlight the appropriate box(es)).

| Ridgeline | Plateau | Side slope of hill/mountain | Closed valley | Open valley | Plain | Undulating plain/low hills | Dune | Sea-front |

(b) Please provide a description of the location in the landscape.

The property is located approximately 7 km west of Robertson. The proposed site is located north of the Breede River with two koppies bordering the eastern side (Skurwekop and Gorees Hoogte). To the west the site lies within the valley of the Vink River and Breede River. Sandberg lies further south (south of the Breede River). Rooiberg lies to the far west.

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

(a) Is the site(s) located on or near any of the following (highlight the appropriate boxes)?

| Shallow water table (less than 1.5m deep) | YES | NO | UNSURE |
| Seasonally wet soils (often close to water bodies) | YES | NO | UNSURE |
| Unstable rocky slopes or steep slopes with loose soil | YES | NO | UNSURE |
| Dispersive soils (soils that dissolve in water) | YES | NO | UNSURE |
| Soils with high clay content | YES | NO | UNSURE |
| Any other unstable soil or geological feature | YES | NO | UNSURE |
| An area sensitive to erosion (parts have eroded in the past) | YES | NO | UNSURE |
| An area adjacent to or above an aquifer | YES | NO | UNSURE |
| An area within 100m of the source of surface water | YES | NO | UNSURE |

(b) If any of the answers to the above are “YES” or “unsure”, specialist input may be requested by the Department. (Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

(c) Please indicate the type of geological formation underlying the site.

| Granite | Shale | Sandstone | Quartzite | Dolomite | Dolorite | Other (describe) |

Please provide a description.

Shales of the Bokkeveld Group (Cape Super Group) overlain by recently deposited sandy soil (weathering product of Table Mountain Sandstone).
4. SURFACE WATER

(a) Indicate the surface water present on and or adjacent to the site and alternative sites (highlight the appropriate boxes)?

<table>
<thead>
<tr>
<th>Surface Water Type</th>
<th>YES</th>
<th>NO</th>
<th>UNSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perennial River</td>
<td>YES</td>
<td>NO</td>
<td>UNSURE</td>
</tr>
<tr>
<td>Non-Perennial River</td>
<td>YES</td>
<td>NO</td>
<td>UNSURE</td>
</tr>
<tr>
<td>Permanent Wetland</td>
<td>YES</td>
<td>NO</td>
<td>UNSURE</td>
</tr>
<tr>
<td>Seasonal Wetland</td>
<td>YES</td>
<td>NO</td>
<td>UNSURE</td>
</tr>
<tr>
<td>Artificial Wetland</td>
<td>YES</td>
<td>NO</td>
<td>UNSURE</td>
</tr>
<tr>
<td>Estuarine / Lagoonal wetland</td>
<td>YES</td>
<td>NO</td>
<td>UNSURE</td>
</tr>
</tbody>
</table>

(b) Please provide a description.

The Vinkrivier is bordering the western side of the property, approximately 800 meters to the west of the new development site.

A small farm dam is located on the Property.

5. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult http://bgis.sanbi.org or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8498. This information may be updated from time to time and it is the applicant/ EAP’s responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

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

<table>
<thead>
<tr>
<th>Systematic Biodiversity Planning Category</th>
<th>If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Biodiversity Area (CBA)</td>
<td></td>
</tr>
<tr>
<td>Ecological Support Area (ESA)</td>
<td></td>
</tr>
<tr>
<td>Other Natural Area (ONA)</td>
<td></td>
</tr>
<tr>
<td>No Natural Area Remaining (NNR)</td>
<td>Although the vegetation is not considered endangered, the area forms part of a terrestrial CBA identified to meet vegetation type thresholds (see Appendix D and G1).</td>
</tr>
</tbody>
</table>

(b) Highlight and describe the habitat condition on site.

<table>
<thead>
<tr>
<th>Habitat Condition</th>
<th>Percentage of habitat condition class (adding up to 100%)</th>
<th>Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes etc).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural</td>
<td>80%</td>
<td>Most of the area intended for cultivation of new vineyards consist of natural habitat. This natural vegetation however show signs of overgrazing and erosion.</td>
</tr>
<tr>
<td>Near Natural</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degraded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transformed</td>
<td>20%</td>
<td>A portion of the area intended for cultivation is already transformed by roads, bare soil and an old sand quarry site.</td>
</tr>
</tbody>
</table>

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10
(c) Complete the table to indicate:
(i) the type of vegetation, including its ecosystem status, present on the site; and
(ii) whether an aquatic ecosystem is present on site.

<table>
<thead>
<tr>
<th>Terrestrial Ecosystems</th>
<th>Aquatic Ecosystems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)</td>
<td>Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)</td>
</tr>
<tr>
<td>Critical</td>
<td>YES</td>
</tr>
<tr>
<td>Endangered</td>
<td>YES</td>
</tr>
<tr>
<td>Vulnerable</td>
<td>YES</td>
</tr>
<tr>
<td>Least Threatened</td>
<td>YES</td>
</tr>
</tbody>
</table>

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

The SA Vegetation Map (Mucina and Rutherford, 2006) classified the vegetation on site as Robertson Karoo vegetation (Least Threatened). The vegetation was classified more recently as Worcester Renosterveld Karoo which is also considered Least Threatened (CAPE Fine-Scale Biodiversity Planning Project (2007), Integrated Vegetation Layer for the Langeberg Municipality).

6. LAND USE OF THE SITE

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies.

<table>
<thead>
<tr>
<th>Untransformed area</th>
<th>Low density residential</th>
<th>Medium density residential</th>
<th>High density residential</th>
<th>Informal residential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>Commercial &amp; warehousing</td>
<td>Light industrial</td>
<td>Medium industrial</td>
<td>Heavy industrial</td>
</tr>
<tr>
<td>Power station</td>
<td>Office/consulting room</td>
<td>Military or police base/station/compound</td>
<td>Casino/entertainment complex</td>
<td>Tourism &amp; Hospitality facility</td>
</tr>
<tr>
<td>Open cast mine</td>
<td>Underground mine</td>
<td>Spoil heap or slimes dam</td>
<td>Quarry, sand or borrow pit</td>
<td>Dam or reservoir</td>
</tr>
<tr>
<td>Hospital/medical center</td>
<td>School</td>
<td>Tertiary education facility</td>
<td>Church</td>
<td>Old age home</td>
</tr>
<tr>
<td>Sewage treatment plant</td>
<td>Train station or shunting yard</td>
<td>Railway line</td>
<td>Major road (4 lanes or more)</td>
<td>Airport</td>
</tr>
<tr>
<td>Harbour</td>
<td>Sport facilities</td>
<td>Golf course</td>
<td>Polo fields</td>
<td>Filling station</td>
</tr>
<tr>
<td>Landfill or waste treatment site</td>
<td>Plantation</td>
<td>Agriculture</td>
<td>River, stream or wetland</td>
<td>Nature conservation area</td>
</tr>
<tr>
<td>Mountain, koppie or ridge</td>
<td>Museum</td>
<td>Historical building</td>
<td>Graveyard</td>
<td>Archeological site</td>
</tr>
<tr>
<td>Other land uses (describe):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Please provide a description.

The site predominantly consists of an untransformed area with sections used for agriculture (grazing). A small section is transformed into a sand borrow pit. A railway line passes through the proposed site and a small farm dam is located on site. Both the farm dam and railway line are excluded from the development (30 ha clearing for cultivation).
7. LAND USE CHARACTER OF SURROUNDING AREA

(a) Highlight the current land uses and/or prominent features that occur within +/- 500m radius of the site and neighbouring properties if these are located beyond 500m of the site.

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity(ies).

<table>
<thead>
<tr>
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<td>Archeological site</td>
</tr>
</tbody>
</table>

(b) Please provide a description, including the distance and direction to the nearest residential area and industrial area.

Land uses and prominent features of the surrounding area are predominantly agricultural related and include vineyards and orchards, farm dams, farm workers housing, the Vinkrivier (western border of the property), the railway line, untransformed field and the two “koppiës” (Skurwekop and Gorees Hoogo) bordering the eastern side of the proposed site. An old sand quarry is also located directly east of the site intended for cultivation. The nearest residential and industrial areas are located in the Robertson town (7 km).

8. SOCIO-ECONOMIC ASPECTS

Describe the existing social and economic characteristics of the community in order to provide baseline information.

De Goree Farm forms part of the rural area of the Langeberg Municipality (previously Breede River Winelands Municipality) rural area. The Langeberg Municipality encompasses an area of 3334 km². The rural areas have a population of approximately 35 000. These inhabitants are mainly farm employees who are sparsely distributed throughout this area. Robertson is the closest urban settlement to the development site (7 km), and constitutes the receiving environment.

National Government set targets, through the Reconstruction and Development Programme, as early as 1994, to transfer 30% of white owned agricultural land to previously disadvantaged individuals by 2014. De Goree Farm is one of such land reform projects. The 138 ha farm is 52% BBBEE owned by 116 individuals (of whom 52 are woman) and 48% is owned by Van Loveren PTY (LTD). De Goree Farm presently has 49 hectares under vineyards, which were aimed to be enlarged over time as more water was received.
The following figures are derived from the most recent (2001) Census count for the Robertson receiving community. It is assumed that trends have remained reasonably constant.

According to 2001 Census data, the Robertson community consisted of 18,335 people in 2001 – representing 22.5% of the total population of the Langeberg Municipal Area.

In summary, the Robertson direct receiving community displayed a clear differentiation in socio-economic profiles with regard to the White and Black population groups – with the latter predominantly constituted by the Coloured population group. The Black group represents almost 80% of the town's population. Afrikaans is by far the most dominant language in the community as a whole, followed by isiXhosa and English – the latter two together constituting around 7% of first language speakers.

The White population group may be described as predominantly lower to middle middle-income, with relatively low poverty rates, fair education rates and a relatively low unemployment rate. The largest portion of employed household heads are active in the tertiary sector. Household sizes are at around 2.43 people per household.

In contrast, the Black group may be described as predominantly lower-income. An estimated 32.5% of households had no formal income or earned less than the poverty datum of R800/month. Education rates are higher than for the Langeberg Municipal Area, but lower than Provincial averages. Unemployment rates compare favorably with Provincial and National estimated averages, but the rate of 11.5% is still significant, and may hide seasonal unemployment, as is often the case in areas in the Western Cape where intensive agriculture play a major role in the local economy. Significantly, 20.5% of the group were employed in the agricultural sector.

9. HISTORICAL AND CULTURAL ASPECTS

(a) Please be advised that if section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), is applicable to your proposed development, then you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Section 38 of the Act states as follows: “38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(b) the construction of a bridge or similar structure exceeding 50m in length;
(i) any development or other activity which will change the character of a site—
(ii) exceeding 5,000 m2 in extent; or
(iii) involving three or more existing erven or subdivisions thereof; or
(iv) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
(v) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
(d) the re-zoning of a site exceeding 10,000 m2 in extent; or
(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.”

(b) The impact on any national estate referred to in section 3(2), excluding the national estate contemplated in section 3(2)(i)(vi) and (vii), of the National Heritage Resources Act, 1999 (Act No. 25 of 1999), must also be investigated, assessed and evaluated. Section 3(2) states as follows: “3(2) Without limiting the generality of subsection (1), the national estate may include—

(a) places, buildings, structures and equipment of cultural significance;
(b) places to which oral traditions are attached or which are associated with living heritage;
(c) historical settlements and townscapes;
(d) landscapes and natural features of cultural significance;
(e) geological sites of scientific or cultural importance;
(f) archaeological and palaeontological sites;
(g) graves and burial grounds, including—
(i) ancestral graves;
(ii) royal graves and graves of traditional leaders;
(iii) graves of victims of conflict;
(iv) graves of individuals designated by the Minister by notice in the Gazette;
(v) historical graves and cemeteries; and
(vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
(h) sites of significance relating to the history of slavery in South Africa;
(i) movable objects, including—
(i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
(ii) objects to which oral traditions are attached or which are associated with living heritage;
(iii) ethnographic art and objects;
(iv) military objects;
(v) objects of decorative or fine art;
(vi) objects of scientific or technological interest; and
(vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).”

Is section 38 of the National Heritage Resources Act, 1999, applicable to the development?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>UNCERTAIN</th>
</tr>
</thead>
</table>

If YES, explain:  
The development will change the character of a site-  
(i) exceeding 5 000 m$^2$ in extent; (clearing of 30 ha for cultivation)  

Archaeological Impact Report attached (Appendix G2)  
Archaeological Monitoring Plan attached (Appendix G3)

Will the development impact on any national estate referred to in section 3(2) of the National Heritage Resources Act, 1999?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>UNCERTAIN</th>
</tr>
</thead>
</table>

If YES, explain:  
Will any building or structure older than 60 years be affected in any way?  

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>UNCERTAIN</th>
</tr>
</thead>
</table>

If YES, explain:  
Please Note: If uncertain, the Department may request that specialist input be provided.

10. APPlicable legislation, policies and/or Guidelines

(a) Please list all legislation, policies and/or guidelines that have been considered in the preparation of this Basic Assessment Report.

<table>
<thead>
<tr>
<th>LEGISLATION</th>
<th>ADMINISTERING AUTHORITY</th>
<th>TYPE Permit/license/ authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval)</th>
<th>DATE (if already obtained):</th>
</tr>
</thead>
<tbody>
<tr>
<td>The National Environmental Management Act (NEMA) – Act 107 of 1998, as amended</td>
<td>Department of Environmental Affairs and Development Planning (DEA&amp;DP)</td>
<td>Considered legislation, this application.</td>
<td></td>
</tr>
<tr>
<td>The Environmental Impact Assessment Regulations GN R543-R547, as amended by R660, August 2010.</td>
<td>DEA&amp;DP</td>
<td>Considered legislation, this application.</td>
<td></td>
</tr>
<tr>
<td>Section 38 of the National Heritage Resources Act (Act No. 25 of 1999)</td>
<td>Heritage Western Cape (HWC)</td>
<td>Basic Assessment Report, NID and Archeological Impact Assessment submitted to HWC for comment.</td>
<td>Pending</td>
</tr>
<tr>
<td>Conservation of Agricultural Resources Act (Act 43 of 1983)</td>
<td>Department of Agriculture Western Cape (Land Care)</td>
<td>Application for the cultivation of virgin soil.</td>
<td>Pending</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>POLICY/ GUIDELINES</th>
<th>ADMINISTERING AUTHORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guideline on Public Participation (2010)</td>
<td>DEA&amp;DP</td>
</tr>
<tr>
<td>Guideline on Alternatives (2010)</td>
<td>DEA&amp;DP</td>
</tr>
<tr>
<td>Guideline on Need and Desirability (2010)</td>
<td>DEA&amp;DP</td>
</tr>
</tbody>
</table>
(b) Please describe how the legislation, policies and/or guidelines were taken into account in the preparation of this Basic Assessment Report.

<table>
<thead>
<tr>
<th>LEGISLATION / POLICY / GUIDELINE</th>
<th>DESCRIBE HOW THE LEGISLATION / POLICY / GUIDELINE WERE TAKEN INTO ACCOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEA&amp;DP’s Guidelines: Public Participation (2010); Alternatives (2010); Need and Desirability (2010)</td>
<td>Application to various components in the Basic Assessment Report</td>
</tr>
<tr>
<td>Western Cape Provincial Spatial Development Framework (2005)</td>
<td>Considered in the assessment of need and desirability and alignment with the objectives of the WC PSDF.</td>
</tr>
<tr>
<td>Langeberg Municipality Spatial Development Framework (review 2010)</td>
<td>Considered in the assessment of need and desirability and alignment with the objectives of the Langeberg Municipality SDF.</td>
</tr>
<tr>
<td>The Biodiversity Sector Plan for the Witzenberg, Breede Valley and Langeberg Municipalities (2010)</td>
<td>Critical biodiversity Areas Map GIS Shapefiles were considered to determine the vegetation type and the presence of CBAs. Biodiversity Sector Plan Handbooks were considered to determine ecosystem status of vegetation on site.</td>
</tr>
<tr>
<td>Census 2001 Community Profiles interactive DVD</td>
<td>Social and economic characteristics of the community (town of Robertson).</td>
</tr>
</tbody>
</table>

Please note: Copies of any permit(s) or licences received from any other organ of state must be attached this report as Appendix E.

SECTION C: PUBLIC PARTICIPATION

The public participation process must fulfil the requirements outlined in NEMA, the EIA Regulations, and if applicable the NEM: WA and/or the NEM: AQA. This Department’s Guideline on Public Participation (August 2010) and Guideline on Exemption Applications (August 2010), both of which are available on the Department’s website [http://www.capegateway.gov.za/eadp], must also be taken into account.

Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was a deviation that was agreed to by the Department.

1. Were all potential interested and affected parties notified of the application by –

   (a) fixing a notice board at a place conspicuous to the public at the boundary or on the fence of -

   (i) the site where the activity to which the application relates is to be undertaken; and YES DEVIATED

   (ii) any alternative site mentioned in the application: Not Applicable (there are no alternative sites mentioned in the Application) YES DEVIATED

   (b) giving written notice to –

   (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land: Not Applicable (the Applicant is the landowner) YES N/A

   (ii) the occupiers of the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken: Not Applicable (there are no occupiers) YES DEVIATED

   (iii) owners and occupiers of land adjacent to the site where the activity is to be undertaken and to any alternative site where the activity is to be undertaken: YES DEVIATED
Please note: In terms of the NEM: WA and NEM: AQA a notice must be placed in at least two newspapers circulating in the area in which the activity applied for is to be carried out.

2. Provide a list of all the state departments that were consulted:

1. Department of Environmental Affairs and Development Planning
2. Director: Sustainable Resource Management, Department of Agriculture – Western Cape
3. Director: LandCare, Department of Agriculture – Western Cape
4. Municipal Manager, Cape Winelands District Municipality
5. Municipal Manager, Langeberg Municipality
6. CapeNature
7. Heritage Western Cape
8. Breede Overberg Catchment Management Agency (BOCMA) (DWA delegated authority)
9. Central Breede River Water Users Association
10. Municipal Ward Councillor (Ward 5)
11. Department of Rural Development (Worcester)
12. Transnet

3. Please provide an overall summary of the Public Participation Process that was followed. (The detailed outcomes of this process must be included in a comments and response report to be attached to the final Basic Assessment Report (see note below) as Appendix F).
A detailed Public Participation Process was followed for this project:

- The addresses of all neighbours of Portion 19 of Farm 100, Robertson (hereafter referred to as the subject land) were obtained from the Langeberg Municipality records office and entered into the Interested and Affected Persons database.
- An advert describing the proposed development, expected activities to be triggered, the public participation process and including an invitation to comment was placed in English and Afrikaans in the local newspaper, the Breede Gazette, on the 5th of April 2011.
- Notices describing the proposed development, expected activities to be triggered, the public participation process and including an invitation to comment, were sent via registered and normal postage to the neighbouring properties of the subject land.
- In addition, registered letters and digital/hard copies of the draft Basic Assessment Report were sent to the relevant commenting authorities (listed in section 2 above).
- An A1 sized site notice, in English and Afrikaans, describing the proposed development, expected activities to be triggered, public participation process, and inviting comment, was erected at the proposed site (for the duration of the commenting period and EIA process).
- Copies of the draft Basic Assessment Report was available for public view at the Robertson Public Library, the BolandEnviro offices in Worcester and on the website www.BolandEnviro.co.za/projects for the duration of the commenting period.
- The commenting period commenced on the 5th of April 2011 and closed on the 19th of May 2011.

All comments received are incorporated into the final report. The Final BAR was released for an additional 21 days commenting period to all relevant commenting authorities and registered I&APs (25 August – 14 September 2011).

Please note:

Should any of the responses be “No” and no deviation or exemption from that requirement was requested and agreed to / granted by the Department, the Basic Assessment Report will be rejected.

A list of all the potential interested and affected parties, including the organs of State, notified and a list of all the register of interested and affected parties, must be submitted with the final Basic Assessment Report. The list of registered interested and affected parties must be opened, maintained and made available to any person requesting access to the register in writing.

The draft Basic Assessment Report must be submitted to the Department before it is made available to interested and affected parties, including the relevant organs of State and State departments which have jurisdiction with regard to any aspect of the activity, for a 40-day commenting period. With regard to State departments, the 40-day period commences the day after the date on which the Department as the competent/licensing authority requests such State department in writing to submit comment. The applicant/EAP is therefore required to inform this Department in writing when the draft Basic Assessment Report will be made available to the relevant State departments for comment. Upon receipt of the Draft Basic Assessment Report and this confirmation, this Department will in accordance with Section 24O(2) and (3) of the NEMA request the relevant State departments to comment on the draft report within 40 days.

All comments of interested and affected parties on the draft Basic Assessment Report must be recorded, responded to and included in the Comments and Responses Report included as Appendix F to the final Basic Assessment Report. If necessary, any amendments in response to comments received must be effected in the Basic Assessment Report itself. The Comments and Responses Report must also include a description of the public participation process followed.

The final Basic Assessment Report must be made available to registered interested and affected parties for comment before submitting it to the Department for consideration. Unless otherwise indicated by the Department, a final Basic Assessment Report must be made available to the registered interested and affected parties for comment for a minimum of 21-days. Comments on the final Basic Assessment Report does not have to be responded to, but the comments must be attached to the final Basic Assessment Report.

The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants must also be submitted as part of the public participation information to be attached to the final Basic Assessment Report as Appendix F.
Proof of all the notices given as indicated, as well as of notice to the interested and affected parties of the availability of the draft Basic Assessment Report and final Basic Assessment Report must be submitted as part of the public participation information to be attached to the final Basic Assessment Report as Appendix F.

SECTION D: NEED AND DESIRABILITY

Please Note: Before completing this section, first consult this Department’s Guideline on Need and Desirability (August 2010) available on the Department’s website (http://www.capegateway.gov.za/eadp).

1. Is the activity permitted in terms of the property’s existing land use rights?  
   YES  NO  Please explain

   The Property is currently zoned for agricultural use (Agriculture I).

2. Will the activity be in line with the following?
   (a) Provincial Spatial Development Framework (PSDF)  
      YES  NO  Please explain

      The activities conform to the PSDF as it is an agricultural activity occurring outside the urban edge. The area has been identified as important for agriculture.

      Government aims to redistribute approximately 30% of commercial agricultural land in the Province (∼4 million hectares) to black ownership by 2015. This land reform process aimed to settle 7000 land reform beneficiaries in the first five years of the Land Redistribution for Agricultural Development programme.

      De Goree Farm is one of such land reform projects approved by the Department of Rural Development as well as the Langeberg Municipality. The 138 ha farm is 52% BEE owned by 116 individuals (of whom 52 are women) and 48% owned by Van Loveren PTY (LTD). De Goree Farm presently has 49 hectares under vineyards, which were aimed to be increased over time (this application) as improved water rights are received.

   (b) Urban edge / Edge of Built environment for the area  
      YES  NO  Please explain

      Not applicable. The development entails agricultural activities within an area zoned for agricultural use (Agriculture I).

   (c) Integrated Development Plan and Spatial Development Framework of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?)  
      YES  NO  Please explain

      The Langeberg Municipality identified local economic development as a key strategic objective in the Integrated Development Plan. One of the Key Performance Areas or Programmers is land reform projects to create economic empowerment. The proposed development will contribute to the local economic development in the area by increasing the economic value of the project which is 52% BBBEE owned. As a result, 116 previously disadvantaged families will benefit from the proposed development.

      This development will help to stimulate intensive farming activities, recognized as priority for the area by the Langeberg Municipality Spatial Development Framework.
      • Promotion of intensive agricultural activities and agri-business;

   (d) Approved Structure Plan of the Municipality  
      YES  NO  Please explain

      Not applicable
(e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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An EMF has not yet been implemented for this region.

(f) Any other Plans (e.g. Guide Plan)

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<th>YES</th>
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3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?

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This project is within the timeframe of the Western Cape PSDF as it include 116 land reform beneficiaries (target of 7000 beneficiaries within the first 5 years of the SDF for the Province). In addition, the proposed development will expand the area under cultivation and will significantly increase the economic viability of Property which is 52% Black owned.

4. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?

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In order for De Goree (Pty) Ltd to grow economically and to achieve their full agricultural potential, there is a need for vineyard expansion. Van Loveren Wine Cellar has signed a long-term contract with De Goree Farming (Pty) Ltd for the supply of grapes to its cellar, at market-related prices, thus securing a market. The proposed development should result in a significant increase in production and will add positively to the sustainability of this land reform project.

5. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)

<table>
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<th>YES</th>
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The proposed development will not necessarily benefit society in general. The Farm De Goree is however 52% Black owned and the proposed development will support 116 land reform beneficiaries from the local community and their families. There is a need to increase the agricultural potential and economic value of the property in order to sustain the current employment and create new jobs.

6. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix E.)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Please explain</th>
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The Langeberg Municipality has confirmed availability of 50 kVA electricity to De Goree Farm (Appendix E).

The Applicant is currently in the process of applying for additional water from the Brandvlei Dam (Breede River). A 30 ha Water Use Application has been lodged with the Breede Overberg Catchment Management Agency.

No additional infrastructure is required.
7. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix E.)

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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</table>

No additional infrastructure is required from the municipality.

8. Is this project part of a national programme to address an issue of national concern or importance?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Please explain</th>
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</table>

The proposed vineyard expansion does not address an issue of National concern, apart from a small contribution to successful land reform.

9. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)

<table>
<thead>
<tr>
<th>YES</th>
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Surrounding land use are predominantly agricultural related and include vineyards and orchards, farm dams and farm workers housing. The proposed development (cultivation of additional vineyards) will therefore not detract from the current land use of the property and the surrounding area. The proposed sites for land clearing are currently undeveloped, partly degraded in some places and of low economic value to the landowner should it not be developed for cultivation.

10. How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?

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<thead>
<tr>
<th>YES</th>
<th>NO</th>
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There are currently no buildings on the proposed sites for land clearing and no new building will be constructed. The proposed development will not impact on any sensitive cultural areas.

The proposed sites for land clearing comprise indigenous vegetation namely Worcester Renosterveld Karoo which is considered least threatened. The proposed development will not impact on sensitive ecosystems.

Approximately 16 ha (50%) of the proposed area intended for cultivation does however fall within a terrestrial Critical Biodiversity Area (CBA), identified by the CAPE fine-scale biodiversity planning project. This section is located along the edge of a large, continuous north-south trending natural corridor. Although the vegetation on site is not considered endangered, this CBA has been identified to meet a vegetation type thresholds.

11. How will the development impact on people’s health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
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The proposed development is an expansion of the existing land use. The development will not generate significant noise, odours or waste in addition to the current farming operation. No storage or processing activities will take place on the property. The development is in line with the surrounding land use and will not detract the sense of place of the area. The proposed development will therefore not negatively impact on people’s health or wellbeing.

12. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?

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<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Please explain</th>
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The proposed sites for land clearing are currently not utilized for agricultural or any purpose by De Goree (Pty) Ltd. The proposed sites for land clearing are currently undeveloped, partly degraded (with clear signs of erosion) and of low economic value to the landowner should it not be developed for cultivation. The proposed development will increase the agricultural potential and economic value of these sites and will not result in unacceptable opportunity costs.
### 13. What will the cumulative impacts (positive and negative) of the proposed land use associated with the activity applied for, be?

<table>
<thead>
<tr>
<th>YES</th>
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</table>
|     |    | Negative: Approximately 16 ha of the proposed sites for land clearing fall within a terrestrial CBA. These areas have been identified to meet biodiversity thresholds. Any development within these CBAs will have the cumulative impact of an irreversible reduction or fragmentation of a network of natural sites (landscape corridor) identified to meet pattern and process thresholds of vegetation types (regardless of ecosystem status).

Positive: Clearing the proposed sites for cultivation would, in combination with the existing vineyards on the property, significant increase production and the economic viability of the farming operation which currently support 116 previously disadvantaged families. |

### 14. Is the development the best practicable environmental option for this land/site?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Please explain</th>
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|     |    | The proposed development is in line with the surrounding land use, will increase the economic value of the property and will ensure erosion management.

The proposed sites targeted for land clearing are currently undeveloped and of low economic value should it not be developed by the Applicant. The vegetation type is considered Least Threatened and no rare/endangered plant species were recorded during two field visits.

Some parts do however form part of a terrestrial CBA. Although development are normally not recommended within CBAs, there are clear signs of erosion evident on the sites and some parts are degraded (exposed areas, dump sites, old sand borrow pit). Should this land not be cultivated, erosion will naturally continue along these sites and may lead to the further degradation of adjacent natural sites.

The development sites form part of a CBA along the edge of a larger, continuous north-south trending natural corridor (identified as CBAs to meet biodiversity thresholds). The target areas are however, surrounded by steeper, natural areas which are unfavorable for cultivation and the north-south trending natural CBA corridor will remain intact. |

### 15. What will the benefits be to society in general and to the local communities?

Although it is doubtful that the proposed development will have a significant impact on society in general, the larger vineyard footprint will significantly increase production by De Goree (Pty) Ltd. This should add positively to the agricultural potential of the farming unit as well as the sustainability of this land reform project. |

### 16. Any other need and desirability considerations related to the proposed activity?

Not Applicable
(17) Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account:

The general objective of Section 23 of NEMA is to promote the application of appropriate environmental management tools in order to ensure integrated environmental management of activities which may have a significant effect on the environment.

Furthermore, the aim is to identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, to assess the risks, consequences and alternatives and to propose mitigation options which will contribute to minimising negative impacts.

For this application, actual and potential impacts on the various environments have been considered and assessed.

Alternative options for the development have also been considered and assessed to determine where and how potential negative impacts on the environment can be reduced, and how the development may have positive impacts. Mitigation measures have been proposed to minimize negative impacts and to enhance positive impacts in this regard.

The nature of the application results in a number of impacts, with the reduction of a terrestrial CBA being the most significant NEGATIVE impact and the increase in the local economic development being the most significant POSITIVE impact, should the proposed development be authorised and mitigation measures be implemented. The mitigation measures proposed will ensure that the activities proposed will be conducted in a controlled manner to reduce the chances of significant detrimental environmental impact.

Other mitigation measures have also been proposed for the duration of the construction and operational phases in order to avoid potential negative impacts but also to reduce impacts that will definitely occur.

In accordance with Integrated Environmental Management methodology, adequate and appropriate opportunity was provided for members of the public, commenting authorities and state departments to participate in decisions that may effect the environment. Members of the public were informed of the proposed development via an advert in a local newspaper and an A1-sized on-site notice. The notices described the proposed development, the expected activities to be triggered, the public participation process and included an invitation to comment. Notices were sent, by normal and registered post, to all neighbours and properties within 100 meters of the development site. In addition notices and copies of the draft Basic Assessment Report were sent to all relevant commenting authorities, state departments and displayed at the public library in Robertson. Copies of the Final BAR will be resubmitted to registered I&APs and commenting authorities for final input.

For details on the Public Participation process, refer to Appendix F.
(18) Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account:

The applicable principles of environmental management as set out in Section 2 of NEMA emphasize consideration of the following:

- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably – I&APs and Stakeholders are allowed the opportunity to raise any issues and concerns that they may have regarding the proposed development. The proposed development is in line with the existing land use on the property and the surrounding area and will not impede on peoples needs.

- Development must be socially, environmentally and economically sustainable – As the proposed development will be conducted on privately owned land albeit by a group of more than 116 individuals, there are limited social issues to be considered in terms of sustainable development. With adequate management and the implementation of the proposed mitigation measures, the development will have limited detrimental impact on the environment. An increase in production levels by DeGoree (PTY) LTD will make the development economically more viable. This should add positively to the agricultural potential of the farming unit as well as the sustainability of this land reform project.

- Consideration for ecosystems and loss of biological diversity – The proposed development will entail cultivation within a portion of a terrestrial CBA. Parts of the target areas for cultivation within the CBA are degraded and show clear signs of erosion. The target areas are mostly surrounded by steeper areas of natural veld, that are unfavorable for cultivation. Mitigation measures are proposed to prevent further degradation of adjacent natural areas and to prevent the development from encroaching further east, into the adjacent north-south trending CBA corridor. A search and rescue operation is recommended for any plant species that are of value to be translocated to a safe haven. An alternative layout is considered to maintain areas that have a potential biodiversity value on the property.

- Pollution and degradation of the environment – There will be no processing or storage activities taking place on the property. With the implementation of the mitigation measures proposed in this report it is not anticipated that pollution or significant environmental degradation will occur.

- Disturbance of landscapes and sites that constitute the nation's cultural heritage – The proposed development will not change the cultural landscape characteristics of the area.

- Waste avoidance, minimization and recycling – The proposed development is not expected to produce any waste.

- Responsible use of non-renewable natural resources – Water efficient drip irrigation will be used in the new vineyards.

- Avoidance, minimization and remedying of negative impacts – Impacts of the new vineyards (removal of natural vegetation) can NOT be avoided. An alternative layout option is considered to maintain some natural habitat within the sections that fall within a terrestrial CBA. The impacts will be minimized by utilizing existing roads on the property and by limiting the development to the western, and most disturbed sections of the property as far as possible, in order to maintain a continuous natural CBA corridor along the east.

- Interests, needs and values of all interested and affected parties – This process provides potential I&APs and other key stakeholders with adequate opportunity for comment, review and input on the process and available documentation. Details of the Public Participation Process undertaken is described in Appendix F.

- Transparency and access of information – The draft and final BAR and all Appendices will be available for review by all I&APs at the Worcester Public Library, BolandEnviro offices in Robertson and on the BolandEnviro website. All relevant documentation will also be provided (digital or hard copy) to commenting authorities and registered I&APs.

- Community well-being and empowerment – The proposed development will contribute to local economic development in the region and supports 116 previously disadvantages families.
SECTION E: ALTERNATIVES

Please Note: Before completing this section, first consult this Department’s Guideline on Alternatives (August 2010) available on the Department’s website (http://www.capegateway.gov.za/eadp).

“Alternatives”, in relation to a proposed activity, means different means of meeting the general purposes and requirements of the activity, which may include alternatives to –
(a) the property on which, or location where, it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

The NEMA prescribes that the procedures for the investigation, assessment and communication of the potential consequences or impacts of activities on the environment must, inter alia, with respect to every application for environmental authorisation –
• ensure that the general objectives of integrated environmental management laid down in NEMA and the National Environmental Management Principles set out in NEMA are taken into account; and
• include an investigation of the potential consequences or impacts of the alternatives to the activity on the environment and assessment of the significance of those potential consequences or impacts, including the option of not implementing the activity.

The general objective of integrated environmental management is, inter alia, to “identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management” set out in NEMA.

1. In the sections below, please provide a description of any identified and considered alternatives and alternatives that were found to be feasible and reasonable.

Please note: Detailed written proof the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exist.

(a) Property and location/site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No feasible locality alternatives exists:

Farm DeGoree No 100, Portion 19, Robertson is the only feasible and reasonable site alternative identified for the proposed development. The proposed site is currently located on the Property owned by DeGoree Farming (Pty) Ltd and is the only remaining areas on the property which is suitable for cultivation. The property contains all the infrastructure (roads, water transfer and storage, power supply) required for the cultivation of additional vineyards. Any alternative sites would require De Goree Farming (Pty) Ltd to purchase additional property and would require additional bank loans or Government funding for an existing land reform project.

(b) Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No feasible activity alternatives exist.

De Goree Farming (Pty) Ltd will require the clearing of natural vegetation on the Property for the cultivation of new vineyards. Should the land not be cleared, these additional areas on the property will remain undeveloped and the economic viability of the property which is 52 % BEE owned by 116 individuals will not be increased. The currently undeveloped land on the property has a low agricultural potential and is of little value should it not be developed.

(c) Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

Three layout alternatives are proposed.
Alternative A1:
The Applicants preferred alternative is to cultivate a total area of 30 ha consisting of 4 land parcels, Site A-D (see Appendix B – Figure 2). These are the areas originally intended for cultivation in the CARA Application to plough.

Site A: 12.7 ha
Site B + Site C: 13.1 ha
Site D: 4.2 ha

Alternative A2:
An alternative layout is proposed where the western boundary of Site A is extended further west to include an additional disturbed area which is not included in the initially proposed layout plan. Additionally, the eastern boundary of Site A and Site B are retracted to cover areas that are mostly degraded and to exclude areas of denser natural vegetation. This layout alternative will ensure that a larger natural area remains intact along the natural CBA corridor (see Appendix B – Figure 3). This natural area is however cut off from the larger CBA corridor by an old quarry pit.

Alternative A3:
Following the commenting period on the draft BAR and a soil survey a third alternative layout is proposed. This layout excludes Site D and includes the total areas of Sites A, B and C (see Appendix B – Figure 4). This layout is the EAPs preferred alternative.

• Site D will be the first intrusion into an otherwise natural area north of the railway line which also includes parts of a CBA. Additionally Site D has low potential soil. This area should therefore be excluded.
• Much of Site A and B are already disturbed and bordered by cultivated areas towards the west. Additionally this area is bordered by a sand quarry site towards the east (outside the Property boundary). Site A and B are therefore already somehow disturbed and fragmented. Developing only parts of Sites A and B will merely result in fragmented parcels of agricultural fields and small natural patches surrounded by disturbance.
• Sites A and B should therefore be fully utilized up to the eastern boundary of the property. Site C should be fully utilized. Site D should be excluded from the development.

(d) Technology alternatives (e.g. to reduce resource demand and resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No feasible technological alternatives exist. The proposed development will make use of latest viticulture techniques and efficient drip irrigation.

(e) Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:

No feasible operational alternatives exist. DeGoree Farm currently has all the necessary infrastructure established for the existing farming operation (vineyards) which is to be expanded by the proposed development.

Additional infrastructure and/or facilities will be required to accommodate alternative options.

(f) the option of not implementing the activity (the No-Go Option):

Alternative A4 – The No-Go alternative will not involve new farming activities.

No-Go. This alternative implies that no natural vegetation will be cleared for the purpose of vineyard expansion. The existing 49 ha cultivated area would remain unchanged.

(g) Other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist:
(h) Please provide a summary of the alternatives investigated and the outcomes of such investigation:

A2: Layout Alternative 2. A larger natural area remains intact along the natural CBA corridor towards the east.
A4: No-Go. No natural vegetation will be cleared for the expansion of vineyards.

SECTION F: IMPACT ASSESSMENT, MANAGEMENT, MITIGATION AND MONITORING MEASURES

Please note: The information in this section must be duplicated for all the feasible and reasonable alternatives (where relevant).

1. PLEASE DESCRIBE THE MANNER IN WHICH THE DEVELOPMENT WILL IMPACT ON THE FOLLOWING ASPECTS:

1(a) Geographical and physical aspects:

No significant landscape features will be impacted by the proposed development. The Vink River is located along the western border of the property, adjacent to existing vineyards but located approximately 800 meters to the west of the new development site. The two kopjes, Skurwekop and Gorees Hoogte are bordering the eastern side of the property and the proposed development sites. These steeper areas are unfavourable for cultivation and will not be impacted by the proposed development.

The proposed development is in line with the surrounding land use and will have no significant visual impact during the operational phase.

There are clear signs of soil erosion evident on the proposed sites identified for cultivation. Cultivation may cause extensive soil erosion should effective erosion control measures not be implemented.

1(b) Biological aspects:

Will the development have an impact on critical biodiversity areas (CBAs) or ecological support areas (CSAs)?

If yes, please describe:

Approximately 16 ha (50%) of the proposed area intended for cultivation fall within a terrestrial Critical Biodiversity Area, identified by the CAPE Fine-Scale Biodiversity Planning Project. The specific sites are located along the western edge of a larger, continuous north-south trending natural biodiversity corridor identified as CBAs.

Will the development have on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)?

If yes, please describe:

The proposed development will involve the clearing of approximately 30 ha Worcester Renosterveld Karoo (25 ha of vegetation where 75% of the vegetation cover constitutes indigenous vegetation and 5 ha transformed areas). This vegetation type is considered least threatened and the proposed areas identified for cultivation is already partly disturbed in some sections.

Will the development have an impact on any populations of threatened plant or animal species, and/or on any habitat that may contain a unique signature of plant or animal species?
If yes, please describe:

Not Applicable

Please describe the manner in which any other biological aspects will be impacted:

A large continuous natural biodiversity corridor will remain intact along the eastern boundary of the proposed development.

1(c) Socio-Economic aspects:

| What is the expected capital value of the activity on completion? | R 6 million |
| What is the expected yearly income or contribution to the economy that will be generated by or as a result of the activity? | 1st yr R 0  
2nd yr R 400 000  
3rd yr R 800 000  
4th yr R 1.5 million |
| Will the activity contribute to service infrastructure? | YES   | NO |
| How many new employment opportunities will be created in the construction phase of the activity? | 40 |
| What is the expected value of the employment opportunities during the construction phase? | R 900 000 |
| What percentage of this will accrue to previously disadvantaged individuals? | 100 % |
| How will this be ensured and monitored (please explain): | Only black and coloured people will be employed. |
| How many permanent new employment opportunities will be created during the operational phase of the activity? | 10 |
| What is the expected current value of the employment opportunities during the first 10 years? | R 210 000 |
| What percentage of this will accrue to previously disadvantaged individuals? | 100 % |
| How will this be ensured and monitored (please explain): | Only black and coloured people will be employed. |
| Any other information related to the manner in which the socio-economic aspects will be impacted: | The value of the Property, of which 52% is BBBEE owned, will be increased from R10 000 000 to R16 000 000 by the proposed development. |

1(d) Cultural and historic aspects:

The proposed development will not detract from any cultural landscape. The development is in line with surrounding land use and no buildings will be constructed or affected by the proposed development.

The Agency for Cultural Resource Management (J. Kaplan) conducted an Archaeological Impact Assessment (AIA) on the preferred sites identified for the cultivation of new vineyards (Appendix G2).

“It is maintained that the archaeological study has captured good information on the archaeological heritage present, and that the proposed development, of agricultural lands will not have an impact of great significance on these and potentially other archaeological remains that might be exposed during vegetation clearing operations. The Archaeological Impact Assessment has therefore identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.” (J. Kaplan 2011, De Gore AIA). An Archaeological Monitoring Plan is proposed, as requested by HWC, and attached in Appendix G3.
2. **WASTE AND EMISSIONS**

(a) **Waste (including effluent) management**

<table>
<thead>
<tr>
<th>Will the activity produce waste (including rubble) during the construction phase?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?</td>
<td>0 m³</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Will the activity produce waste during its operational phase?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?</td>
<td>Approximately 1 m³/month</td>
<td></td>
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</tbody>
</table>

A small amount of additional solid waste, typical of the existing farming operation on DeGoree Farm (vineyards) may be produced. This type of waste will include empty containers, fertilizer bags, paper, etc.

There will be no storage, packaging or processing of grapes on the property. No form of hazardous waste or effluent will be produced on site. Grapes produced on the property will be processed at the Van Loveren Wine Cellar near Robertson.

Where and how will the waste be treated / disposed of (describe)?

Any additional waste that might be produced will be disposed of on site or transported to the Municipal Landfill Site to the Applicants own cost.

Has the municipality or relevant authority confirmed that sufficient capacity exist for treating / disposing of the waste to be generated by this activity(ies)? If yes, provide written confirmation from Municipality or relevant authority.

Confirmation of sufficient capacity for the disposal of solid waste at the Langeberg Municipal Landfill Site (Ashton) has been acquired (Appendix E3).

Will the activity produce waste that will be treated and/or disposed of at another facility other than into a municipal waste stream? YES | NO |

If yes, has this facility confirmed that sufficient capacity exist for treating / disposing of the waste to be generated by this activity(ies)? Provide written confirmation from the facility and provide the following particulars of the facility: Not Applicable

Describe the measures that will be taken to reduce, reuse or recycle waste:

Very little waste will be generated by the proposed development. Any spare material such as wire or poles used in the establishment of new vineyards will be reused else-ware in the farming operation.

(b) **Emissions into the atmosphere**

<table>
<thead>
<tr>
<th>Will the activity produce emissions that will be disposed of into the atmosphere?</th>
<th>YES</th>
<th>NO</th>
</tr>
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<tbody>
<tr>
<td>If yes, does it require approval in terms of relevant legislation?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Describe the emissions in terms of type and concentration and how it will be treated/mitigated:

Not Applicable

3. **WATER USE**

Please indicate the source(s) of water for the activity by ticking the appropriate box(es)

<table>
<thead>
<tr>
<th>Municipal Water board</th>
<th>Groundwater</th>
<th>River, Stream, Dam or Lake</th>
<th>Other</th>
<th>The activity will not use water</th>
</tr>
</thead>
</table>

If water is to be extracted from a groundwater source, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month: 7450 m³ per ha per year

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10
Please provide proof of assurance of water supply [eg. Letter of confirmation from municipality / water user associations, yield of borehole]

Does the activity require a water use permit / license from DWAF?  [ ] YES  [ ] NO

If yes, please submit the necessary application to Department of Water Affairs and attach proof thereof to this application.

An application for additional water will be submitted to the Department of Water Affairs (pending Environmental Authorisation). The Breede Overberg Catchment Management Agency (BOCMA) is currently processing the relevant water use application (see Appendix E 4). The application can, however, only be presented to the DWA once environmental authorisation is obtained from the Department of Environmental Affairs and Development Planning for the cultivation of the additional agricultural land (i.e. this environmental process).

Describe the measures that will be taken to reduce water demand, and measures to reuse or recycle water:

Water efficient drip irrigation and efficient irrigation scheduling will be used in the expanded vineyard development.

4. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Langeberg Municipality (see Appendix E 2).

Power is already sourced from a municipal power supply (existing farming operation on the Property).

If power supply is not available, where will power be sourced from?

5. ENERGY EFFICIENCY

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

Not Applicable to the current application.

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

Not Applicable to the current application.
6. DESCRIPTION AND ASSESSMENT OF THE SIGNIFICANCE OF IMPACTS PRIOR TO AND AFTER MITIGATION

NOTE: Significant ratings were calculated as a percentage (%) and is categorised as Low, Medium-Low, Medium, Medium-High or High (Refer to Section G for details on assessment criteria and methodology used).

6.1 Impacts that may result from the planning, design and Construction Phase

6.1.1 Alternative A1: Applicants preferred layout – all remaining areas on property suitable for cultivation

<table>
<thead>
<tr>
<th>6.1.1.1. Storm Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description:</td>
</tr>
<tr>
<td>Nature of impact:</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreplaceable loss of resources:</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
</tr>
</tbody>
</table>
| Proposed mitigation: | • Cleared areas should be exposed for the minimum time possible.  
• Storm water should be drained into existing drainage channels alongside the roads and railway line.  
• Water runoff from higher lying areas must be taken with a storm water furrow, of adequate size, above the development areas towards a safe collection point where no erosion will take place. |
| Cumulative impact post mitigation: | Negligible |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Low (negative) (14%) |

6.1.1.2. Erosion

| Description: | Exposed land will be sensitive to soil erosion. |
| Nature of impact: | Negative |
| Extent and duration of impact: | Limited to site and immediate surroundings |
| Probability of occurrence: | Likely |
| Degree to which the impact can be reversed: | Partly reversible |
| Degree to which the impact may cause irreplaceable loss of resources: | Medium loss |
| Cumulative impact prior to mitigation: | Low |
| Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): | Medium-Low (negative) (29%) |
| Degree to which the impact can be mitigated: | The impact can be mitigated |
| Proposed mitigation: | • Cleared areas should be exposed for the minimum time possible and planted with vineyards.  
• An adequate cover crop must be available at all times to prevent any erosion or mulch should be applied between rows to protect open soil.  
• Vineyard rows should be established parallel with natural contours to limit any concentration of runoff.  
• Tilling practices should be conducted to a minimum.  
• Any erosion sites should be rehabilitated as soon as
### 6.1.1.3a Biological: Loss of indigenous plant species

**Description:**

Some species restricted to sandy, lower-lying areas could be lost from the immediate site. The distribution range of the recorded plant species do however extend much further than the immediate site. No rare or endangered species were recorded.

**Nature of impact:**

Negative

**Extent and duration of impact:**

Limited Permanent but mitigation can reduce the impact

**Probability of occurrence:**

Definite

**Degree to which the impact can be reversed:**

Barely

**Cumulative impact prior to mitigation:**

Medium

**Significance rating of impact prior to mitigation**

Medium - Low (Negative) (43%)

**Degree to which the impact can be mitigated:**

Partly

**Proposed mitigation:**

- Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.
- Rocks and vegetation debris should not be dumped on adjacent natural vegetation.
- Dust levels should be kept to a minimum to avoid smothering of sensitive areas by windblown sediments.
- The Manager of the Vrolijkheid Nature Reserve (McGregor) as well as the Curator of the Karoo-Desert National Botanical Garden (Worcester) should be contacted prior to any development activities and given the opportunity to collect any plants on the target areas of the property which are of value for translocation to the nature reserve, botanical garden or another appropriate refuge.

**Cumulative impact post mitigation:**

Low

**Significance rating of impact after mitigation**

Medium - Low (Negative) (34%)

### 6.1.1.3b Biological: Loss of vegetation type

**Description:**

Approximately 30 ha natural vegetation will be removed. Worcester Renosterveld Karoo is found over an extensive area in the Breede River Valley. This vegetation type is considered least threatened with approximately 83.09% or 33 000 ha of natural vegetation remaining.

**Nature of impact:**

Negative

**Extent and duration of impact:**

Limited Project life

**Probability of occurrence:**

Definite

**Degree to which the impact can be reversed:**

Irreversible

**Degree to which the impact may cause irreplaceable loss of resources:**

Marginal

**Cumulative impact prior to mitigation:**

Low (calculated 0.09 % of remaining natural vegetation to be removed)

**Significance rating of impact prior to mitigation**

Medium - Low (Negative) (35%)

**Degree to which the impact can be mitigated:**

Partly

**Proposed mitigation:**

- The Applicant should only clear the land necessary to accommodate the development.
### 6.1.1.3c. Biological: Loss of habitat

<table>
<thead>
<tr>
<th>Description:</th>
<th>The development of the proposed targets areas will lead to a localized loss of this isolated, low lying sandy habitat. Most of the fauna and other organisms that occur in the target areas will have other similar habitat still available to them.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Site and immediate surroundings Project life</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Likely</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Partly</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreplaceable loss of resources:</td>
<td>Marginal</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Low</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
<td>Medium - Low (Negative) (37%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>Partly</td>
</tr>
</tbody>
</table>

#### Proposed mitigation:

- The Applicant should only clear the land necessary to accommodate the development.
- Development on Site D should be limited to flat areas where vegetation is sparse. Adjacent natural, steeper areas should be excluded from any development.
- Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.
- Rocks and vegetation debris should not be dumped on adjacent natural vegetation.
- Dust levels should be kept to a minimum to avoid smothering of sensitive areas by windblown sediments.
- The Manager of the Vrolijkheid Nature Reserve (McGregor) as well as the Curator of the Karoo-Desert National Botanical Garden (Worcester) should be contacted prior to any development activities and given the opportunity to collect any plants on the target areas of the property which are of value for translocation to the nature reserve, botanical garden or another appropriate refuge.
- Any animals encountered during the land clearing should be relocated to adjacent natural areas and not harmed in any way.

#### Cumulative impact post mitigation:

| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Medium-Low (Negative) (29%) |

### 6.1.1.3d. Biological: Loss of ecological processes

<table>
<thead>
<tr>
<th>Description:</th>
<th>The proposed development will not lead to small vegetation fragments. Ecological processes will still be able to take place over extensive areas and the north-south trending CBA will remain intact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Local Short term</td>
</tr>
</tbody>
</table>
### 6.1.1.3e. Biological: Reduction of a CBA

<table>
<thead>
<tr>
<th>Description:</th>
<th>Although the area intended for cultivation is degraded and previously disturbed in many sections, the development will result in a small reduction of a larger continuous natural corridor identified to maintain biodiversity thresholds. The development will however occur along the edge of this CBA network and the north-south trending biodiversity corridor will remain intact.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Local-Regional Permanent</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Definite</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Irreversible</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreplaceable loss of resources:</td>
<td>Marginal</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Medium</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
<td>Medium (Negative) (56%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>Barely</td>
</tr>
</tbody>
</table>
| Proposed mitigation: | • The Applicant should only clear the land necessary to accommodate the development.  
  • The development should be limited to the western sections as far as possible, to allow for a continuous natural corridor along the east (CBA).  
  • Development on Site D should be limited to flat areas where vegetation is sparse. Adjacent natural, steeper areas should be excluded from any development.  
  • It is essential that no further development or disturbance occur within the adjacent CBAs. |
| Cumulative impact post mitigation: | Medium |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Medium (Negative) (50%) |

### 6.1.1.4. Heritage: Archaeological

<table>
<thead>
<tr>
<th>Description:</th>
<th>The archaeological study has captured good information on the archaeological heritage present, and that the proposed development, of agricultural lands will not have an impact of great significance on these and potentially other archaeological remains that might be exposed during vegetation clearing operations (J.Kaplan Archaeological Impact Report).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
</tbody>
</table>
### Extent and duration of impact:
Limited
Short term

### Probability of occurrence:
Low

### Degree to which the impact can be reversed:
Completely reversible

### Degree to which the impact may cause irreplaceable loss of resources:
No loss

### Cumulative impact prior to mitigation:
Negligible

### Significance rating of impact prior to mitigation
Low (Negative) (10%)

### Degree to which the impact can be mitigated:
Impact can be mitigated

**Proposed mitigation:**
- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported to Heritage Western Cape (Ms Jenna Lavin or Ms Belinda Muti on 021 483 9692).
- Burial remains should not be disturbed or removed until inspected by the archaeologist.
- Vegetation clearing operations and removal of top soils from the affected land parcels should be monitored by the archaeologist (Mr Jonathan Kaplan of the Agency for Cultural Resource Management).

### Cumulative impact post mitigation:
Negligible

### Significance rating of impact after mitigation
Low (Negative) (10%)

### 6.1.1.5. Socio-economic

**Description:**
Approximately 40 employment opportunities during soil preparation and planting of vineyards.

**Nature of impact:**
Positive

**Extent and duration of impact:**
Local
Short term

**Probability of occurrence:**
Definite

**Degree to which the impact can be reversed:**
Not Applicable

**Degree to which the impact may cause irreplaceable loss of resources:**
No loss

**Cumulative impact prior to mitigation:**
Low (positive)

**Significance rating of impact prior to mitigation**
Medium - Low (Positive) (27%)

**Degree to which the impact can be mitigated:**
Not Applicable

**Proposed mitigation:**
Not Applicable

**Cumulative impact post mitigation:**
Low (positive)

**Significance rating of impact after mitigation**
Medium - Low (Positive) (27%)

### 6.1.1.6. Dust

**Description:**
Increased dust levels due to earth moving activities and soil preparation.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Local
Short term

**Probability of occurrence:**
High

**Degree to which the impact can be reversed:**
Completely reversible

**Degree to which the impact may cause irreplaceable loss of resources:**
No loss

**Cumulative impact prior to mitigation:**
Negligible

**Significance rating of impact prior to mitigation**
Medium-Low (Negative) (22%)

**Degree to which the impact can be mitigated:**
Impact can be mitigated

**Proposed mitigation:**
- Cleared land should be exposed for a minimum time possible.
- Land clearing should not be conducted under strong windy conditions.
### 6.1.1.7 Noise

**Description:**
Increased noise levels due to earth moving activities.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Local
Short term

**Probability of occurrence:**
Likely

**Degree to which the impact can be reversed:**
Irreversible

**Degree to which the impact may cause irretrievable loss of resources:**
No loss

**Cumulative impact prior to mitigation:**
Negligible

**Significance rating of impact prior to mitigation**
Low (Negative) (18%)

**Degree to which the impact can be mitigated:**
Barely

**Proposed mitigation:**
The use of heavy machinery should be limited to normal working hours.

**Cumulative impact post mitigation:**
Negligible

**Significance rating of impact after mitigation**
Low (Negative) (18%)

### 6.1.1.8 Visual

**Description:**
Land clearing and soil preparation could create a visual impact.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Local
Short term

**Probability of occurrence:**
Probable

**Degree to which the impact can be reversed:**
Partly

**Degree to which the impact may cause irretrievable loss of resources:**
No loss

**Cumulative impact prior to mitigation:**
Negligible

**Significance rating of impact prior to mitigation**
Low (Negative) (16%)

**Degree to which the impact can be mitigated:**
Barely

**Proposed mitigation:**
- The Applicant should only clear the land necessary to accommodate the development.
- Cleared areas should be exposed for a minimum time possible and planted with vineyards.
- Mulch should be applied between rows to protect open soil.

**Cumulative impact post mitigation:**
Negligible

**Significance rating of impact after mitigation**
Low (Negative) (16%)

### 6.1.2 Alternative A2: Alternative layout (Development mostly limited to degraded areas)

#### 6.1.2.1 Storm Water

**Description:**
Additional storm water run-off due to removal of natural vegetation.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Limited to site and immediate surroundings
Short term

**Probability of occurrence:**
Likely

**Degree to which the impact can be reversed:**
Partly reversible
### Degree to which the impact may cause irreplaceable loss of resources:

Degree to which the impact may cause irreplaceable loss of resources: Marginal loss

Cumulative impact prior to mitigation: Negligible

Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Low (negative) (18%)

Degree to which the impact can be mitigated: The impact can be mitigated

#### Proposed mitigation:

- Cleared areas should be exposed for the minimum time possible.
- Storm water should be drained into existing drainage channels alongside the roads and railway line.
- Water runoff from higher lying areas must be taken with a storm water furrow, of adequate size, above the development areas towards a safe collection point where no erosion will take place.

Cumulative impact post mitigation: Negligible

Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): Low (negative) (14%)

### 6.1.2.2. Erosion

**Description:** Exposed land will be sensitive to soil erosion.

**Nature of impact:** Negative

**Extent and duration of impact:** Limited to site and immediate surroundings - Medium term

**Probability of occurrence:** Likely

**Degree to which the impact can be reversed:** Partly reversible

**Degree to which the impact may cause irreplaceable loss of resources:** Medium loss

Cumulative impact prior to mitigation: Low

Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium-Low (negative) (29%)

Degree to which the impact can be mitigated: The impact can be mitigated

#### Proposed mitigation:

- Cleared areas should be exposed for the minimum time possible and planted with vineyards.
- An adequate cover crop must be available at all times to prevent any erosion or mulch should be applied between rows to protect open soil.
- Vineyard rows should be established parallel with natural contours to limit any concentration of runoff.
- Tilling practices should be conducted to a minimum.
- Any erosion sites should be rehabilitated as soon as possible and water run-off directed to a safe collection point should any erosion be evident after ploughing.

Cumulative impact post mitigation: Negligible

Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): Low (negative) (14%)

### 6.1.2.3.a Biological: Loss of indigenous plant species

**Description:** Some species restricted to sandy, lower-lying areas could be lost from the immediate site. The distribution range of the recorded plant species do however extent much further than the immediate site. No rare or endangered species were recorded.

**Nature of impact:** Limited

**Extent and duration of impact:** Definite - Permanent but mitigation can reduce the impact

**Probability of occurrence:** Barely

**Degree to which the impact can be reversed:** Marginal

**Degree to which the impact may cause irreplaceable loss of resources:** Low

Cumulative impact prior to mitigation: Medium (Negative) (43%)

Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Partly

Cumulative impact post mitigation: Negligible

Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): Low (negative) (15%)
### 6.1.2.3b. Biological: Loss of vegetation type

**Description:**
Approximately 30 ha natural vegetation will be removed. Worcester Renosterveld Karoo is found over an extensive area in the Breede River Valley. This vegetation type is considered least threatened with approximately 83.09% or 33 000 ha natural vegetation remaining.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Limited

**Probability of occurrence:**
Definite

**Degree to which the impact can be reversed:**
Irreversible

**Degree to which the impact may cause irreplaceable loss of resources:**
Marginal

**Cumulative impact prior to mitigation:**
Low (calculated 0.09 % of remaining natural vegetation to be removed)

**Significance rating of impact prior to mitigation**
Medium - Low (Negative) (35%)

**Degree to which the impact can be mitigated:**
Partly

**Proposed mitigation:**
- The Applicant should only clear the land necessary to accommodate the development.
- Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.
- Rocks and vegetation debris should not be dumped on adjacent natural vegetation.
- Dust levels should be kept to a minimum to avoid smothering of sensitive areas by windblown sediments.

**Cumulative impact post mitigation:**
Low

**Significance rating of impact after mitigation**
Medium - Low (Negative) (32%)
Degree to which the impact may cause irreplaceable loss of resources: Marginal
Cumulative impact prior to mitigation: Low
Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High) Medium - Low (Negative) (35%)
Degree to which the impact can be mitigated: The impact can be mitigated

Proposed mitigation:
- The Applicant should only clear the land necessary to accommodate the development.
- The development should be limited to the western sections as far as possible, to allow for a continuous natural corridor along the east (CBA).
- The eastern boundary of Sites A and B should be retracted to areas where disturbance is most evident and to maintain a larger area of natural habitat.
- The eastern boundary of Sites A and B should be retracted to areas where disturbance is most evident and to maintain a larger area of natural habitat.
- Development on Site D should be limited to flat areas where vegetation is sparse. Adjacent natural, steeper areas should be excluded from any development.
- Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.
- Rocks and vegetation debris should not be dumped on adjacent natural vegetation.
- Dust levels should be kept to a minimum to avoid smothering of sensitive areas by windblown sediments.
- The Manager of the Vrolijkheid Nature Reserve (McGregor) as well as the Curator of the Karoo-Desert National Botanical Garden (Worcester) should be contacted prior to any development activities and given the opportunity to collect any plants on the target areas of the property which are of value for translocation to the nature reserve, botanical garden or another appropriate refuge.
- Any animals encountered during the land clearing should be relocated to adjacent natural areas and not harmed in any way.

Cumulative impact post mitigation: Low
Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High) Medium-Low (Negative) (24%)

6.1.2.3d. Biological: Loss of ecological processes

Description: The proposed development will not lead to small vegetation fragments. Ecological processes will still be able to take place over extensive areas and the north-south trending CBA will remain intact.

Nature of impact: Negative
Extent and duration of impact: Local Short term
Probability of occurrence: Probable
Degree to which the impact can be reversed: Completely reversible
Degree to which the impact may cause irreplaceable loss of resources: Marginal
Cumulative impact prior to mitigation: Low
Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High) Low (Negative) (19%)
Degree to which the impact can be mitigated: The impact can be mitigated

Proposed mitigation:
- The Applicant should only clear the land necessary to accommodate the development.
- The development should be limited to the western sections as far as possible, to allow for a continuous natural corridor along the east (CBA).
- The eastern boundary of Sites A and B should be retracted to areas where disturbance is most evident and to maintain a larger area of natural habitat.
- Development on Site D should be limited to flat areas where vegetation is sparse. Adjacent natural, steeper areas should be excluded from any development.
### 6.1.2.3e. Biological: Reduction of a CBA

**Description:**
Although the area intended for cultivation is degraded and previously disturbed in many sections, the development will result in a small reduction of a larger continuous natural corridor identified to maintain biodiversity thresholds. The development will however occur along the edge of this CBA network and the north-south trending biodiversity corridor will remain intact.

**Nature of impact:** Negative

**Extent and duration of impact:** Local Permanent

**Probability of occurrence:** Definite

**Degree to which the impact can be reversed:** Irreversible

**Degree to which the impact may cause irreplaceable loss of resources:** Marginal

**Cumulative impact prior to mitigation:** Medium

**Significance rating of impact prior to mitigation**
Medium (Negative) (52%)

**Degree to which the impact can be mitigated:** Partly

**Proposed mitigation:**
- The Applicant should only clear the land necessary to accommodate the development.
- The development should be limited to the western sections as far as possible, to allow for a continuous natural corridor along the east (CBA).
- The eastern boundary of Sites A and B should be retracted to areas where disturbance is most evident and to maintain a larger area of natural habitat.
- Development on Site D should be limited to flat areas where vegetation is sparse. Adjacent natural, steeper areas should be excluded from any development.
- It is essential that no further development or disturbance occur within the adjacent CBAs.

**Cumulative impact post mitigation:** Medium

**Significance rating of impact after mitigation**
Medium - Low (Negative) (38%)

### 6.1.2.4. Heritage: Archaeological

**Description:**
The archaeological study has captured good information on the archaeological heritage present, and that the proposed development, of agricultural lands will not have an impact of great significance on these and potentially other archaeological remains that might be exposed during vegetation clearing operations (J.Kaplan Archaeological Impact Report).

**Nature of impact:** Negative

**Extent and duration of impact:** Limited Short term

**Probability of occurrence:** Low

**Degree to which the impact can be reversed:** Completely reversible

**Degree to which the impact may cause irreplaceable loss of resources:** No loss

**Cumulative impact prior to mitigation:** Negligible

**Significance rating of impact prior to mitigation**
Low (Negative) (10%)

**Degree to which the impact can be mitigated:** Impact can be mitigated

**Proposed mitigation:**
- Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the
proposed project, these should immediately be reported Heritage Western Cape (Ms Jenna Lavin or Ms Belinda Muti 021 483 9692).

- Burial remains should not be disturbed or removed until inspected by the archaeologist.
- Vegetation clearing operations and removal of top soils from the affected land parcels should be monitored by the archaeologist (Mr Jonathan Kaplan of the Agency for Cultural Resource Management).

| Cumulative impact post mitigation: | Negligible |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High) | Low (Negative) (10%) |

### 6.1.2.5. Socio-economic

#### Description:
Approximately 40 employment opportunities during soil preparation and planting of vineyards

#### Nature of impact:
Positive

#### Extent and duration of impact:
Local
Short term

#### Probability of occurrence:
Definite

#### Degree to which the impact can be reversed:
Not Applicable

#### Degree to which the impact may cause irreplaceable loss of resources:
No loss

| Cumulative impact prior to mitigation: | Low (positive) |
| Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High) | Medium - Low (Positive) (27%) |
| Degree to which the impact can be mitigated: | Not Applicable |

| Proposed mitigation: | |
| Cumulative impact post mitigation: | Low (positive) |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High) | Medium - Low (Positive) (27%) |

### 6.1.2.6. Dust

#### Description:
Increased dust levels due to earth moving activities and soil preparation.

#### Nature of impact:
Negative

#### Extent and duration of impact:
Local
Short term

#### Probability of occurrence:
High

#### Degree to which the impact can be reversed:
Completely reversible

#### Degree to which the impact may cause irreplaceable loss of resources:
No loss

| Cumulative impact prior to mitigation: | Negligible |
| Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High) | Low (Negative) (22%) |
| Degree to which the impact can be mitigated: | Impact can be mitigated

| Proposed mitigation: | |
| Cumulative impact post mitigation: | Negligible |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High) | Low (Negative) (18%) |

### 6.1.2.7. Noise

#### Description:
Increased noise levels due to earth moving activities.

#### Nature of impact:
Negative

#### Extent and duration of impact:
Local
Short term
6.1.2.8. Visual

**Description:** Land clearing and soil preparation could create a visual impact.

**Nature of impact:** Negative

**Extent and duration of impact:** Local Short term

**Probability of occurrence:** Probable

**Degree to which the impact can be reversed:** Partly

**Degree to which the impact may cause irreplaceable loss of resources:** No loss

**Cumulative impact prior to mitigation:** Negligible

**Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):** Low (Negative) (18%)

**Degree to which the impact can be mitigated:** Barely

**Proposed mitigation:**
- The Applicant should only clear the land necessary to accommodate the development.
- Cleared areas should be exposed for a minimum time possible and planted with vineyards.

**Cumulative impact post mitigation:** Negligible

**Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High):** Low (Negative) (18%)
### Project Life

<table>
<thead>
<tr>
<th>Project life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability of occurrence:</td>
</tr>
<tr>
<td>Likely</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
</tr>
<tr>
<td>Partly</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreplaceable loss of resources:</td>
</tr>
<tr>
<td>Marginal</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
</tr>
<tr>
<td>Low</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation</td>
</tr>
<tr>
<td>(Low, Medium-Low, Medium, Medium-High or High)</td>
</tr>
<tr>
<td>Medium - Low (Negative) (33%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
</tr>
<tr>
<td>Partly</td>
</tr>
</tbody>
</table>

#### Proposed mitigation:
- The Applicant should only clear the land necessary to accommodate the development.
- No development should occur north of the railway line.
- Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.
- Rocks and vegetation debris should not be dumped on adjacent natural vegetation.
- Dust levels should be kept to a minimum to avoid smothering of sensitive areas by windblown sediments.
- The Manager of the Vrolijkheid Nature Reserve (McGregor) as well as the Curator of the Karoo-Desert National Botanical Garden (Worcester) should be contacted prior to any development activities and given the opportunity to collect any plants on the target areas of the property which are of value for translocation to the nature reserve, botanical garden or another appropriate refuge.
- Any animals encountered during the land clearing should be relocated to adjacent natural areas and not harmed in any way.

### Cumulative Impact Post Mitigation

| Cumulative impact post mitigation:                |
| Low                                                |
| Significance rating of impact after mitigation     |
| (Low, Medium-Low, Medium, Medium-High or High)    |
| Medium-Low (Negative) (22%)                        |

### 6.1.3.e. Biological: Reduction of a CBA

**Description:**
Although the area intended for cultivation is degraded and previously disturbed in many sections, the development will result in a small reduction of a larger continuous natural corridor identified to maintain biodiversity thresholds. The development will however occur along the edge of this CBA network and the north-south trending biodiversity corridor will remain intact.

| Nature of impact:                                  |
| Negative                                           |
| Extent and duration of impact:                     |
| Local-Regional Permanent                           |
| Probability of occurrence:                         |
| Definite                                           |
| Degree to which the impact can be reversed:        |
| Irreversible                                       |
| Degree to which the impact may cause irreplaceable loss of resources: |
| Marginal                                            |
| Cumulative impact prior to mitigation:             |
| Medium                                             |
| Significance rating of impact prior to mitigation |
| (Low, Medium-Low, Medium, Medium-High or High)    |
| Medium (Negative) (51%)                            |
| Degree to which the impact can be mitigated:       |
| Barely                                             |

#### Proposed mitigation:
- The Applicant should only clear the land necessary to accommodate the development.
- It is essential that no further development or disturbance occur within the adjacent CBAs.

#### Cumulative Impact Post Mitigation

| Cumulative impact post mitigation:                |
| Medium                                             |
| Significance rating of impact after mitigation     |
| (Low, Medium-Low, Medium, Medium-High or High)    |
| Medium (Negative) (44%)                            |
### 6.1.4 Alternative A4: No-Go

#### 6.1.4.1. Storm Water

**Description:**
No additional storm water run-off is expected.

#### 6.1.4.2. Erosion

**Description:**
There are clear signs of erosion within natural areas and some areas are degraded / exposed. Should these areas not be developed and effective erosion control measures not be implemented, erosion will continue and may result in the further degradation of adjacent natural areas and CBAs.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Limited to site and immediate surroundings
Permanent but can be mitigated

**Probability of occurrence:**
High

**Degree to which the impact can be reversed:**
Partly reversible

**Degree to which the impact may cause irreplaceable loss of resources:**
Medium loss

**Cumulative impact prior to mitigation:**
Low

**Significance rating of impact prior to mitigation**
Medium (negative) (45%)

**Degree to which the impact can be mitigated:**
The impact can be mitigated

**Proposed mitigation:**
- Any erosion sites should be rehabilitated and stabilized to prevent further erosion.
- Disturbed areas should be rehabilitated.

**Cumulative impact post mitigation:**
Negligible

**Significance rating of impact after mitigation**
Medium - Low (negative) (22%)

#### 6.1.4.3a Biological: Loss of indigenous plant species

**Description:**
No loss

#### 6.1.4.3b. Biological: Loss of vegetation type

**Description:**
No loss

#### 6.1.4.3c. Biological: Loss of habitat

**Description:**
No loss

#### 6.1.4.3d. Biological: Loss of ecological processes

**Description:**
No loss

#### 6.1.4.3e. Biological: Reduction of a CBA

**Description:**
Ongoing erosion and disturbance, in the long term, may result in the further degradation of a CBA and adjacent natural areas.

**Nature of impact:**
Negative

**Extent and duration of impact:**
Local-Regional
Permanent but can be mitigated

**Probability of occurrence:**
Probable

**Degree to which the impact can be reversed:**
Partly reversible

**Degree to which the impact may cause irreplaceable loss of resources:**
Marginal

**Cumulative impact prior to mitigation:**
Medium

**Significance rating of impact prior to mitigation**
Medium (Negative) (41%)
Degree to which the impact can be mitigated:  Barely

Proposed mitigation:
- Any CBAs should be excluded from future development.
- Any erosion sites should be rehabilitated and stabilized to prevent further erosion.
- Disturbed areas should be rehabilitated.

Cumulative impact post mitigation:  Low

Significance rating of impact after mitigation
(Low, Medium-Low, Medium, Medium-High or High)  Low (Negative) (16%)

6.1.4.4. Heritage: Archaeological
Description:  No loss

6.1.4.5. Socio-economic
Description:  No additional part time employment opportunities will be created.

6.1.4.6. Dust
Description:  No additional dust impact.

6.1.4.7. Noise
Description:  No additional noise impact.

6.1.4.8. Visual
Description:  No additional visual impact.

6.2 Impacts that may result from the Operational Phase

6.2.1 Alternative A1: Applicants preferred layout for effective vineyard block planning

6.2.1.1. Storm Water and drainage
Description:  Increased storm water run-off due to lack of natural vegetation.
Nature of impact:  Negative
Extent and duration of impact:  Limited to site and immediate surroundings
Long term
Probability of occurrence:  Probable
Degree to which the impact can be reversed:  Partly reversible
Degree to which the impact may cause irrecoverable loss of resources:  Marginal loss
Cumulative impact prior to mitigation:  Negligible
Significance rating of impact prior to mitigation
(Low, Medium-Low, Medium, Medium-High or High)  Medium - Low (negative) (21%)
Degree to which the impact can be mitigated:
- Effective irrigation scheduling should be practiced to enhance drainage and to conserve water.
- Additional storm water should be drained into existing drainage channels alongside the roads and railway line.
- Water runoff from higher lying areas must be taken with a storm water furrow, of adequate size, above the development areas towards a safe collection point where no erosion will take place.

Proposed mitigation:

Cumulative impact post mitigation:  Negligible
Significance rating of impact after mitigation
(Low, Medium-Low, Medium, Medium-High or High)  Low (negative) (14%)
### 6.2.1.2. Erosion

<table>
<thead>
<tr>
<th>Description:</th>
<th>Soil erosion may occur within the newly cultivated areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Limited to site and immediate surroundings Long term</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Probable</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Partly reversible</td>
</tr>
<tr>
<td>Degree to which the impact may cause irretrievable loss of resources:</td>
<td>Marginal loss</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Medium - Low (negative) (25%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>The impact can be mitigated</td>
</tr>
</tbody>
</table>
| Proposed mitigation: | • Any erosion sites should be rehabilitated as soon as possible.  
• An adequate cover crop must be used until soil of newly cultivated areas has stabilized or mulch applied to help stabilize the soil.  
• Tilling practices should be conducted to a minimum. |
| Cumulative impact post mitigation: | Negligible |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Low (negative) (14%) |

### 6.2.1.3. Biological: Fauna, Flora and ecological processes

<table>
<thead>
<tr>
<th>Description:</th>
<th>The proposed development could indirectly impact on adjacent natural areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Limited to site and immediate surroundings Project life</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Likely</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Partly reversible</td>
</tr>
<tr>
<td>Degree to which the impact may cause irretrievable loss of resources:</td>
<td>Marginal loss</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Medium - Low (negative) (31%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>The impact can be mitigated</td>
</tr>
</tbody>
</table>
| Proposed mitigation: | • Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.  
• The development must be restricted to the proposed footprint area.  
• It is essential that no further development or disturbance occur within the adjacent CBAs and further east of the proposed development sites.  
• Spraying of herbicides, pesticides and application of fertilizers should be conducted according to standard procedures (spraying of adjacent natural vegetation should be avoided). |
| Cumulative impact post mitigation: | Low |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Low (negative) (19%) |

### 6.2.1.4. Heritage

| Description: | The proposed development will not impact on any heritage aspects during the operational phase. |
6.2.1.5a. Socio-economic: Employment opportunities

<table>
<thead>
<tr>
<th>Description:</th>
<th>The proposed development will generate 10 new permanent employment opportunities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Positive</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Local Project life</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Definite</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Partly reversible</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreparable loss of resources:</td>
<td>No loss</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Low</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
<td>Medium - Low (positive) (38%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>The impact can not be mitigated</td>
</tr>
<tr>
<td>Proposed mitigation:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Cumulative impact post mitigation:</td>
<td>Low</td>
</tr>
<tr>
<td>Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
<td>Medium - Low (positive) (38%)</td>
</tr>
</tbody>
</table>

6.2.1.5b. Socio-economic: Agricultural potential

| Description: | • The value of the Property, of which 52% is BEE owned, will be increased from R10 000 000 to R16 000 000 by the proposed development.  
|              | • The development will increase sustainability of an existing land reform project.  
|              | • 116 Previously disadvantaged families will benefit from this development. |
| Nature of impact: | Positive |
| Extent and duration of impact: | Local Permanent |
| Probability of occurrence: | Definite |
| Degree to which the impact can be reversed: | Partly reversible |
| Degree to which the impact may cause irreparable loss of resources: | No loss |
| Cumulative impact prior to mitigation: | Low |
| Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): | Medium (positive) (52%) |
| Degree to which the impact can be mitigated: | The impact can not easily be mitigated |
| Proposed mitigation: | Financial records can be analysed to ensure that the BBBEE objectives are being met. |
| Cumulative impact post mitigation: | Low |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Medium (positive) (52%) |

6.2.1.6. Dust

| Description: | The proposed development is not expected to produce any additional dust from the existing farming operation. |

6.2.1.7. Noise

| Description: | The proposed development is not expected to produce any additional noise from the existing farming operation. |

6.2.1.8. Visual

| Description: | The proposed development is in line with the existing land use on the remainder of the Property as well as the land use of the surrounding area. The development will therefore not result in any significant visual impacts during the operational phase. |
### 6.2.2 Alternative A2: Alternative layout (Development mostly limited to degraded areas)

#### 6.2.2.1. Storm Water and drainage

<table>
<thead>
<tr>
<th>Description:</th>
<th>Increased storm water run-off due to lack of natural vegetation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Limited to site and immediate surroundings Long term</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Probable</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Partly reversible</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreplaceable loss of resources:</td>
<td>Marginal loss</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Negligible</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
<td>Medium - Low (negative) (21%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>The impact can be mitigated</td>
</tr>
</tbody>
</table>
| Proposed mitigation: | • Effective irrigation scheduling should be practiced to enhance drainage and to conserve water.  
• Additional storm water should be drained into existing drainage channels alongside the roads and railway line.  
• Water runoff from higher lying areas must be taken with a storm water furrow, of adequate size, above the development areas towards a safe collection point where no erosion will take place. |
| Cumulative impact post mitigation: | Negligible |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Low (negative) (14%) |

#### 6.2.2.2. Erosion

<table>
<thead>
<tr>
<th>Description:</th>
<th>Soil erosion may occur within the newly cultivated areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
<tr>
<td>Extent and duration of impact:</td>
<td>Limited to site and immediate surroundings Long term</td>
</tr>
<tr>
<td>Probability of occurrence:</td>
<td>Probable</td>
</tr>
<tr>
<td>Degree to which the impact can be reversed:</td>
<td>Partly reversible</td>
</tr>
<tr>
<td>Degree to which the impact may cause irreplaceable loss of resources:</td>
<td>Marginal loss</td>
</tr>
<tr>
<td>Cumulative impact prior to mitigation:</td>
<td>Low</td>
</tr>
<tr>
<td>Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):</td>
<td>Medium - Low (negative) (25%)</td>
</tr>
<tr>
<td>Degree to which the impact can be mitigated:</td>
<td>The impact can be mitigated</td>
</tr>
</tbody>
</table>
| Proposed mitigation: | • Any erosion sites should be rehabilitated as soon as possible.  
• An adequate cover crop must be used until soil of newly cultivated areas has stabilized or mulch applied to help stabilize the soil.  
• Tilling practices should be conducted to a minimum. |
| Cumulative impact post mitigation: | Negligible |
| Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): | Low (negative) (14%) |

#### 6.2.2.3. Biological: Fauna, Flora and ecological processes

<table>
<thead>
<tr>
<th>Description:</th>
<th>The proposed development could impact indirectly on adjacent natural areas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of impact:</td>
<td>Negative</td>
</tr>
</tbody>
</table>

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10
### Extent and duration of impact:
- Limited to site and immediate surroundings
- Project life

### Probability of occurrence:
- Probable

### Degree to which the impact can be reversed:
- Partly reversible

### Degree to which the impact may cause irreparable loss of resources:
- Marginal loss

### Cumulative impact prior to mitigation:
- Low

### Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):
- Medium - Low (negative) (28%)

### Degree to which the impact can be mitigated:
- The impact can be mitigated

#### Proposed mitigation:
- Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation.
- The development must be restricted to the proposed footprint area.
- It is essential that no further development or disturbance occur within the adjacent CBAs and further east of the proposed development sites.
- Spraying of herbicides, pesticides and application of fertilizers should be conducted according to standard procedures (spraying of adjacent natural vegetation should be avoided).

### Cumulative impact post mitigation:
- Low

### Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High):
- Low (negative) (16%)

### 6.2.2.4. Heritage

#### Description:
- The proposed development will not impact on any heritage aspects during the operational phase.

### 6.2.2.5a. Socio-economic: Employment opportunities

#### Description:
- The proposed development will generate 10 new permanent employment opportunities.

#### Nature of impact:
- Positive

#### Extent and duration of impact:
- Local
- Project life

#### Probability of occurrence:
- Definite

#### Degree to which the impact can be reversed:
- Partly reversible

#### Degree to which the impact may cause irreparable loss of resources:
- No loss

#### Cumulative impact prior to mitigation:
- Low

#### Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High):
- Medium - Low (positive) (38%)

#### Degree to which the impact can be mitigated:
- The impact can not be mitigated

#### Proposed mitigation:
- Not Applicable

#### Cumulative impact post mitigation:
- Low

#### Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High):
- Medium - Low (positive) (38%)

### 6.2.2.5b. Socio-economic: Agricultural potential

#### Description:
- The value of the Property, of which 52 % is BEE owned, will be increased from R10 000 000 to R16 000 000 by the proposed development.
- The development will increase sustainability of an existing land reform project.
- 116 Previously disadvantaged families will benefit from this development.
- The development of Site D will require a lot of economic input (low soil potential) while a large area of high potential soil (Site A and B) will be compromised (CBA).
Nature of impact: Positive
Extent and duration of impact: Local
Probability of occurrence: Definite
Degree to which the impact can be reversed: Partly reversible
Cumulative impact prior to mitigation: Low
Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium (positive) (46%)
Degree to which the impact can be mitigated: The impact can not easily be mitigated. Site D should be excluded; reducing the available land substantially should Site A and B not be fully utilized.
Proposed mitigation: Financial records can be analysed to ensure that the BBBEE objectives are being met.
Cumulative impact post mitigation: Low
Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium (positive) (46%)

6.2.2.6. Dust
Description: The proposed development is not expected to produce any additional dust from the existing farming operation.

6.2.2.7. Noise
Description: The proposed development is not expected to produce any additional noise from the existing farming operation.

6.2.2.8. Visual
Description: The proposed development is in line with the existing land use on the remainder of the Property as well as the land use of the surrounding area. The development will therefore not result in any significant visual impacts during the operational phase.

6.2.3 Alternative A3: Exclude Site D and utilize total areas on Sites A, B and C.

The development of Site A and B to its full potential will allow for Site D (low soil potential) to be excluded without a significant compromise in area with adequate soil.

Apart from soil potential all impacts of Alternative A3 will be the same as that of Alternative A2 during the Operational Phase.

6.2.3.5b. Socio-economic: Agricultural potential
Description:
- The value of the Property, of which 52% is BEE owned, will be increased from R10 000 000 to R16 000 000 by the proposed development.
- The development will increase sustainability of an existing land reform project.
- 116 Previously disadvantaged families will benefit from this development.
- The development of Site A and B to its full potential will allow for Site D (low soil potential) to be excluded without a significant compromise in area with adequate soil.

Nature of impact: Positive
Extent and duration of impact: Local
Probabilty of occurrence: Definite
Degree to which the impact can be reversed: Partly reversible
Cumulative impact prior to mitigation: Low
Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium (positive) (46%)
Degree to which the impact can be mitigated: The impact can not easily be mitigated. Site D should be excluded; reducing the available land substantially should Site A and B not be fully utilized.
Proposed mitigation: Financial records can be analysed to ensure that the BBBEE objectives are being met.
Cumulative impact post mitigation: Low
Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium (positive) (46%)
6.2.4 Alternative A4: No-Go

6.2.4.1. Storm Water

Description: No additional storm water run-off is expected.

6.2.4.2. Erosion

Description: There are clear signs of erosion within natural areas and some areas are degraded / exposed. Should these areas not be developed and effective erosion control measures not be implemented, erosion will continue and may result in the further degradation of adjacent natural areas and CBAs.

Nature of impact: Negative

Extent and duration of impact: Limited to site and immediate surroundings
Permanent but can be mitigated

Probability of occurrence: High

Degree to which the impact can be reversed: Partly reversible

Degree to which the impact may cause irreplaceable loss of resources: Medium loss

Cumulative impact prior to mitigation: Low

Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium (negative) (45%)

Degree to which the impact can be mitigated: The impact can be mitigated

Proposed mitigation:
- Any erosion sites should be rehabilitated and stabilized to prevent further erosion.
- Disturbed areas should be rehabilitated.

Cumulative impact post mitigation: Negligible

Significance rating of impact after mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium - Low (negative) (22%)

6.2.4.3. Biological: Fauna, Flora and ecological processes

Description: Ongoing erosion and disturbance, in the long term, may result in the further degradation of a CBA and adjacent natural areas.

Nature of impact: Negative

Extent and duration of impact: Local-Regional
Permanent but can be mitigated

Probability of occurrence: Probable

Degree to which the impact can be reversed: Partly reversible

Degree to which the impact may cause irreplaceable loss of resources: Marginal

Cumulative impact prior to mitigation: Medium

Significance rating of impact prior to mitigation (Low, Medium-Low, Medium, Medium-High or High): Medium (Negative) (41%)
### Degree to which the impact can be mitigated: Barely

**Proposed mitigation:**
- Any CBAs should be excluded from future development.
- Any erosion sites should be rehabilitated and stabilized to prevent further erosion.
- Disturbed areas should be rehabilitated.

### Cumulative impact post mitigation: Low

#### Significance rating of impact after mitigation
- (Low, Medium-Low, Medium, Medium-High or High)
- Low (Negative) (16%)

#### 6.2.4.4. Heritage: Archaeological

**Description:** No loss

#### 6.2.4.5a. Socio-economic: Employment opportunities

**Description:** No additional permanent employment opportunities will be produced.

#### 6.2.4.5b. Socio-economic: Agricultural potential

**Description:** Approximately 50 ha of the Property is currently under cultivation and 116 previously disadvantaged families are dependant on profit from this land. The value of the Property (including production figures) will not easily be increased as the remainder of the land (approximately 80 ha) is of low economic value should it not be developed.

- **Nature of impact:** Negative
- **Extent and duration of impact:** Local
  - Long term - permanent
- **Probability of occurrence:** Definite
- **Degree to which the impact can be reversed:** Partly reversible
- **Degree to which the impact may cause irreplaceable loss of resources:** No loss

**Cumulative impact prior to mitigation:** Low

#### Significance rating of impact prior to mitigation
- (Low, Medium-Low, Medium, Medium-High or High)
- Medium (negative) (43%)

- **Degree to which the impact can be mitigated:** The impact can not easily be mitigated

- **Proposed mitigation:** Not Applicable

### Cumulative impact post mitigation: Low

#### Significance rating of impact after mitigation
- (Low, Medium-Low, Medium, Medium-High or High)
- Medium (negative) (43%)

#### 6.2.4.6. Dust

**Description:** No additional dust impact.

#### 6.1.4.7. Noise

**Description:** No additional noise impact.

#### 6.2.4.8. Visual

**Description:** No additional visual impact.

### 6.3 Impacts that may result from the Decommissioning Phase

It is highly unlikely that the proposed development would ever be decommissioned.

Should the vineyard development be decommissioned, an adequate cover crop must be planted to stabilize the soil in order to prevent erosion. The site should be allowed to rehabilitate naturally. Alien invasive plants should be cleared and not allowed to establish.

### 6.4 Any other impacts: Not Applicable
7. SPECIALIST INPUTS/STUDIES AND RECOMMENDATIONS

Please note: Specialist inputs/studies must be attached to this report as Appendix G. Also take into account the Department’s Guidelines on the Involvement of Specialists in EIA Processes available on the Department’s website (http://www.capegateway.gov.za/eadp).

Specialist inputs/studies and recommendations:

<table>
<thead>
<tr>
<th>Botanical Impact Assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boland Enviro botanical specialist conducted a Botanical Impact Assessment for the proposed development (report attached – Appendix G1).</td>
</tr>
<tr>
<td>The vegetation type present is classified as Worcester Renosterveld Karoo (previously known as Robertson Karoo) which is considered least threatened. No rare or endangered species were recorded. Although many parts of the area targeted for cultivation is degraded/disturbed, some areas fall within a terrestrial CBA.</td>
</tr>
<tr>
<td>Alternative layouts are proposed to limit land clearing to disturbed areas as far as possible, to preserve some natural habitat and to maintain an un-interrupted north-south trending natural vegetation corridor towards the west of the proposed sites.</td>
</tr>
<tr>
<td><strong>Recommendations:</strong></td>
</tr>
<tr>
<td>• The development should be limited to the western sections as far as possible, to allow for a continuous natural corridor along the eastern boundary with the CBA.</td>
</tr>
<tr>
<td>• The degraded section towards the west of Site A (currently excluded from the target area) should be considered for inclusion in this site, and the eastern periphery of this site should be retracted to the north-eastern outer edge of the area transformed by the old sand quarry (refer to Figure 22). This will allow for the maintenance of a natural section of the sandy habitat within the immediate location. Alternative A2 only.</td>
</tr>
<tr>
<td>• The development should be limited as far as possible to the areas where previous disturbance is most evident (western section of Site B, above dam). It is recommended that the eastern periphery of Site B be retracted to maintain a larger section of dense natural vegetation within the CBA which also include a section of the sandy habitat type (refer to Figure 22). Alternative A2 only.</td>
</tr>
<tr>
<td>• From a botanical perspective Site C is recommended for new vineyards.</td>
</tr>
<tr>
<td>• Development on Site D should be limited to flat areas where vegetation is sparse. Adjacent natural (dense vegetation) and steeper areas should be excluded from any development. Alternative A1 and A2 only.</td>
</tr>
<tr>
<td>• Existing tracks should be used to access the site to prevent further damage to adjacent natural vegetation. Disturbance of adjacent vegetation should be restricted especially in the areas included in the CBA.</td>
</tr>
<tr>
<td>• The exact area to be cultivated should be demarcated by an ECO prior to commencement of vegetation clearing.</td>
</tr>
<tr>
<td>• Rocks and vegetation debris should not be dumped on adjacent natural vegetation.</td>
</tr>
<tr>
<td>• Dust levels should be kept to a minimum to avoid smothering of sensitive areas by windblown sediments.</td>
</tr>
<tr>
<td>• Effective measure must be implemented to prevent soil erosion within the new cultivated areas.</td>
</tr>
<tr>
<td>• The Manager of the Vrolijkheid Nature Reserve (McGregor) as well as the Curator of the Karoo-Desert National Botanical Garden (Worcester) should be contacted prior to any development activities and given the opportunity to collect any plants on the target areas of the property which are of value for translocation to the nature reserve, botanical garden or another appropriate refuge.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Archaeological Impact Assessment:</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Agency for Cultural Resource Management conducted an Archaeological Impact Assessment for the proposed development (report attached – Appendix G2).</td>
</tr>
<tr>
<td>More than 200 archaeological occurrences were documented during the study, spread over the four affected land portions. All the occurrences have all been mapped with a hand held GPS unit (many were...</td>
</tr>
</tbody>
</table>
photographed). Most of the finds are dominated by tools that can be assigned to the Middle Stone Age, but small numbers of Early Stone Age tools, including several handaxes were also documented. No organic remains such as bone, pottery or ostrich eggshell were found.

The study has captured most of the archaeological heritage that is present, and that the proposed development, of agricultural lands will not have an impact of great significance on these and potentially other archaeological remains that might be exposed during vegetation clearing operations.

The assessment identified no significant impacts to pre-colonial archaeological material that will need to be mitigated prior to proposed development activities.

It is recommended that should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported Heritage Western Cape (Ms Jenna Lavin or Ms Belinda Muti 021 483 9692). Burial remains should not be disturbed or removed until inspected by the archaeologist.

Earthmoving operations are to be monitored by an archaeologist, as requested by HWC. The Agency for Cultural Resource Management (ACRM) compiled an archaeological monitoring plan in accordance with the findings and recommendations contained in the Archaeological Impact Assessment undertaken by ACRM for the proposed farming development (Appendix G3).

**Soil Potential Study:**

A soil potential study was conducted by Mr. Francois roux from Agricultural Consultants International CC. All the areas investigated (Site A, B, C and D) are suitable for the cultivation of vineyards. From a soil potential perspective it will be the best option to develop Areas A, B and C to its full extent and to exclude Site D as it has the lowest potential.

The soil report is included in Appendix G4. Soil map is attached as Appendix G5.

### 8. IMPACT SUMMARY

*Please provide a summary of all the above impacts.*

The most significant negative impacts associated with the proposed development can be attributed to the removal of indigenous vegetation during the Construction Phase, specifically the loss of habitat and a reduction in a terrestrial Critically Biodiversity Area (CBA). These impacts are of medium significant prior to mitigation. All other impact associated with the proposed development are considered to be medium-low or low prior to mitigation. Mitigations are proposed that should reduce the significance of most impact to Low.

The proposed agricultural development will have limited negative impacts associated with the Operational Phase.

Significant positive impacts relate to the socio-economic aspects of the proposed development.

Impact summary tables are provided below. The following colour schemes were attributed to specific impact ratings.
## Table 1: Impact Summary

<table>
<thead>
<tr>
<th>Construction Phase</th>
<th>Pre-mitigation</th>
<th>Post-mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Layout A1</td>
<td>Layout A2</td>
</tr>
<tr>
<td>Storm Water</td>
<td>Low (-) 18</td>
<td>Low (-) 18</td>
</tr>
<tr>
<td>Erosion</td>
<td>Medium - Low (-) 29</td>
<td>Medium - Low (-) 29</td>
</tr>
<tr>
<td>Indigenous plant species</td>
<td>Medium (-) 43</td>
<td>Medium (-) 43</td>
</tr>
<tr>
<td>Biological: Fauna and Flora</td>
<td>Medium - Low (-) 35</td>
<td>Medium - Low (-) 35</td>
</tr>
<tr>
<td>Biological: Reduction of a CBA</td>
<td>Medium (-) 56</td>
<td>Medium (-) 52</td>
</tr>
<tr>
<td>Heritage</td>
<td>Low (-) 10</td>
<td>Low (-) 10</td>
</tr>
<tr>
<td>Socio-economic: Employment opportunities</td>
<td>Medium - Low (+) 27</td>
<td>Medium - Low (+) 27</td>
</tr>
<tr>
<td>Agricultural potential</td>
<td>Medium (-) 52</td>
<td>Medium (+) 46</td>
</tr>
<tr>
<td>Dust</td>
<td>Low (-) 16</td>
<td>Low (-) 16</td>
</tr>
<tr>
<td>Noise</td>
<td>Low (-) 18</td>
<td>Low (-) 18</td>
</tr>
<tr>
<td>Visual</td>
<td>Low (-) 16</td>
<td>Low (-) 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational Phase</th>
<th>Pre-mitigation</th>
<th>Post-mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Layout A1</td>
<td>Layout A2</td>
</tr>
<tr>
<td>Storm Water and drainage</td>
<td>Medium - Low (-) 21</td>
<td>Medium - Low (-) 21</td>
</tr>
<tr>
<td>Erosion</td>
<td>Medium - Low (-) 25</td>
<td>Medium - Low (-) 25</td>
</tr>
<tr>
<td>Biological: Fauna and Flora</td>
<td>Medium - Low (-) 33</td>
<td>Medium - Low (-) 28</td>
</tr>
<tr>
<td>Heritage</td>
<td>Medium - Low (+) 38</td>
<td>Medium - Low (+) 38</td>
</tr>
<tr>
<td>Socio-economic: Employment opportunities</td>
<td>Medium (+) 52</td>
<td>Medium (+) 46</td>
</tr>
<tr>
<td>Dust</td>
<td>Low (-) 16</td>
<td>Low (-) 16</td>
</tr>
</tbody>
</table>
9. OTHER MANAGEMENT, MITIGATION AND MONITORING MEASURES

(a) Over and above the mitigation measures described in Section 6 above, please indicate any additional management, mitigation and monitoring measures.

Not Applicable

(b) Describe the ability of the applicant to implement the management, mitigation and monitoring measures.

It is anticipated that the Applicant will be able to implement all the mitigation measures proposed.

The proposed development is an expansion of existing farming practices and existing management tools will thus proceed. No additional infrastructure is required and there will be no storage, treatment or processing activities taking place. Most impact associated with the proposed farming activities will be of medium-low or low significance and will not require complex mitigation.

Please note: A draft ENVIRONMENTAL MANAGEMENT PROGRAMME must be attached this report as Appendix H.

EMP attached as Appendix H
SECTION G: ASSESSMENT METHODOLOGIES AND CRITERIA, GAPS IN KNOWLEDGE, UNDERLAYING ASSUMPTIONS AND UNCERTAINTIES

(a) Please describe adequacy of the assessment methods used.

Assessment methods used include the following:

- Site visits to determine the nature and sensitivity of the site and the surrounding environment.
- Consulting with the Applicant to gain an understanding of the need for the proposed activity.
- Consulting with relevant commenting authorities.
- Obtaining input from an Archaeological Specialist (see Archaeological Specialist Report – Appendix G).
- Obtaining botanical input (see Botanical – Ecological Specialist Report – Appendix G).
- Consulting with the DEA&DP
- Consideration of the applicable Legislation, Guidelines and Policies.

The assessment methods proved adequate to determine the nature and extent of all impacts by the proposed development on the environment (including the social and economic environment).

(b) Please describe the assessment criteria used.

According to DEAT1 (2006) risk is determined by three main factors:

1. How often it occurs (likelihood, frequency, probability)
2. Severity of the event (consequence, severity, magnitude, impact)
3. How long it will occur (exposure)

Risk was calculated using the following formula:

\[
\text{Risk (Significance)} = \text{likelihood} \times \text{consequence}
\]

These attributes were further refined to the following:

\[
\text{LIKELIHOOD} = \text{frequency} + \text{probability}
\]

\[
\text{EXPOSURE} = \text{extent} / \text{scale (geographical or spatial)} + \text{duration}
\]

\[
\text{SEVERITY is determined by the MAGNITUDE of the action - MAGNITUDE considers different fields including:}
\]

- Social (health, safety, community, cultural heritage);
- Economic;
- Natural Environment (faunal, floral, biophysical);

\[
\text{CONSEQUENCE} = \text{exposure} + \text{severity}
\]

\[
\text{SIGNIFICANCE} = \text{LIKELIHOOD} \times \text{CONSEQUENCE}
\]

The method uses a spreadsheet with a list of identified aspects and uses the attributes to calculate the significance of potential impacts, before and after mitigation, on these aspects. Each criterion is assigned a numerical value and with the relevant calculation gives a significance risk rating ranging from Low; Low – Medium; Medium; Medium – High; High.

The following criteria (including an allocated point system) were used for the assessment of potential impacts (Table 2):
Table 2: BolandEnviro Environmental Impact Assessment Rating System Used to Classify Impacts.

**Parameter Weighting:**

*NOTE:* This table serves as a basis from which the assessment was done. The necessary adaptations are made for each criterion as they are project specific (e.g. very frequent can be once a day or once a month, depending on the nature of the project and impact).

<table>
<thead>
<tr>
<th>Attribute &amp; Definition</th>
<th>Value</th>
<th>Exposure / Probability</th>
<th>Frequency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of the impact:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A description of positive or negative effect of the project on the affected environment, or vice versa.</td>
<td>Positive</td>
<td></td>
<td>&gt; 1/day; once per shift</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td></td>
<td>1/day</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Direct</td>
<td></td>
<td>1/month</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indirect</td>
<td></td>
<td>&gt; 1/year</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cumulative</td>
<td></td>
<td>&gt; 1/5 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synergistic</td>
<td></td>
<td>&gt; 1/100 years</td>
<td></td>
</tr>
<tr>
<td>Frequency of action happening:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The number of times that an event occurs within a given period; rate of recurrence.</td>
<td>7 Continuous</td>
<td>&gt; 1/day; once per shift</td>
<td>1/week</td>
<td>Happens frequently; the impact will occur regardless of the implementation of any preventative or corrective actions.</td>
</tr>
<tr>
<td></td>
<td>6 Very frequent</td>
<td>1/day</td>
<td></td>
<td>1/mo</td>
</tr>
<tr>
<td></td>
<td>5 Frequent</td>
<td>1/month</td>
<td></td>
<td>1/year</td>
</tr>
<tr>
<td></td>
<td>4 Occasional</td>
<td>&gt; 1/year</td>
<td></td>
<td>1/5 years</td>
</tr>
<tr>
<td></td>
<td>3 Unusual/rare</td>
<td>&gt; 1/5 years</td>
<td></td>
<td>&gt; 1/100 years</td>
</tr>
<tr>
<td></td>
<td>2 Very rare</td>
<td>&gt; 1/10 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 Remote</td>
<td>&gt; 1/100 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probability / Risk potential:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Describes the likelihood of the impact actually occurring.</td>
<td>7 Certain / Definite</td>
<td>&gt; 1 /week</td>
<td></td>
<td>Happens frequently; the impact will occur regardless of the implementation of any preventative or corrective actions.</td>
</tr>
<tr>
<td></td>
<td>6 Almost certain / High probability</td>
<td>&gt; 1 /month</td>
<td></td>
<td>Happens often; it is most likely that the impact will occur.</td>
</tr>
<tr>
<td></td>
<td>5 Likely</td>
<td>&gt; 1/year</td>
<td></td>
<td>Could easily happen / The impact may occur.</td>
</tr>
<tr>
<td></td>
<td>4 Probable</td>
<td>1/5 years</td>
<td></td>
<td>Could happen / Has occurred here or elsewhere.</td>
</tr>
<tr>
<td></td>
<td>3 Unlikely / Low probability</td>
<td>1/30 years</td>
<td></td>
<td>Has not happened yet, but could happen once in the lifetime of the project. There is a possibility that the impact will occur.</td>
</tr>
</tbody>
</table>
### LIKELIHOOD (Frequency + Probability):

The possibility of an uncertain future event occurring. It is determined by the frequency of the action that can lead to an event, together with the probability of the event happening.

| Likelihood               | Frequency | Impact
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Rare / Improbable</td>
<td>1/100 years</td>
<td>Conceivable, but only in extreme circumstances. Has not happened during lifetime of the project, but has happened elsewhere. The possibility of the impact materialising is very low as a result of design, historic experience or implementation of adequate mitigation measures.</td>
</tr>
<tr>
<td>1 Highly unlikely / None</td>
<td>1/1000 years</td>
<td>Expected never to happen. Impact will not occur.</td>
</tr>
</tbody>
</table>

### Geographical Extent / Scale:
A measure of how widely the impact would occur.

- **7 International**: The effect will occur across international borders
- **6 National**: Will affect the entire country
- **5 Province / Region**: Will affect the entire province or region
- **4 Municipal area**: Will affect the whole municipal area
- **3 Local**: Extending only as far as the development site area and the immediate surroundings
- **2 Limited**: Limited to the site
- **1 Very limited**: Limited to specific isolated parts of the site

### Duration:
A measure of the lifespan of the impact(s) associated with the proposed activity.

- **7 Permanent - no mitigation**: No mitigation measures of natural process will reduce the impact after implementation
- **6 Permanent - mitigated**: Mitigation measures of natural process will reduce the impact
- **5 Project life**: The impact will cease after the operational life span of the project
- **4 Long term**: 6-15 years; beyond the operational phase, but not permanently
- **3 Medium term**: 1-5 years; during part or all of the operational phase
- **2 Short term**: Less than one year; during the construction phase
- **1 Immediate**: Less than one month
### EXPOSURE (Geographical Extent + Duration):

Determined by the duration of the action together with the geographical extent/scale of the event.

<table>
<thead>
<tr>
<th>Natural Environment:</th>
<th>7</th>
<th>Very significant impact on the environment. Irreparable damage to highly valued species, habitat or ecosystem. Persistent severe damage.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>Significant impact on highly valued species, habitat or ecosystem.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Very serious long-term environmental impairment of ecosystem function that may take several years to rehabilitate.</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Severe medium-term environmental effects. Environmental damage can be reversed in less than a year.</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Moderate, short-term effects but not affecting ecosystem function. Rehabilitation requires intervention of external specialists and can be done in less than a month.</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Minor effects on biological or physical environment. Environmental damage can be rehabilitated internally with or without help of external consultants.</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>Limited damage to minimal area of low significance (e.g. ad hoc spills within plant area). Will have no impact on environment.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social:</th>
<th>7</th>
<th>Irreparable damage to highly valued items of great cultural significance or complete breakdown of social order.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>Irreparable damage to highly valued items of cultural significance or breakdown of social order.</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Very serious widespread social impacts. Irreparable damage to highly valued items.</td>
</tr>
</tbody>
</table>
### FINAL BASIC ASSESSMENT REPORT
CULTIVATION OF VIRGIN SOIL, FARM DE GOREE, PORTION 19 OF FARM 100, ROBERTSON

<table>
<thead>
<tr>
<th>4</th>
<th>Ongoing serious social issues. Significant damage to structures/items of cultural significance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Ongoing health or social issues. Damage to items of cultural significance.</td>
</tr>
<tr>
<td>2</td>
<td>Minor medium-term social impacts on local population. Mostly repairable. Cultural functions and processes not affected.</td>
</tr>
<tr>
<td>1</td>
<td>Low-level impacts.</td>
</tr>
</tbody>
</table>

**Economic:**

| 7 | Permanent significant economic constraints.                                                      |
| 6 | Prolonged constraint, can be mitigated.                                                          |
| 5 | Serious long term economic constraints                                                          |
| 4 | Significant economic constraints.                                                               |
| 3 | Minor economic constraints (local extent).                                                       |
| 2 | Minor economic constraints (immediate extent).                                                   |
| 1 | Insignificant.                                                                                  |

**SEVERITY (Magnitude / Intensity):** Determined by the magnitude or intensity of the action (Environment, Social/Cultural, Economic)

**CONSEQUENCE (Severity + Scale + Duration):** A result, effect or outcome of a previous occurrence.

**SIGNIFICANCE (Likelihood x Consequence)**

<table>
<thead>
<tr>
<th>Degree of Reversibility: This describes the degree to which an impact on an 1</th>
<th>Completely reversible</th>
<th>The impact is reversible with implementation of minor mitigation measures</th>
</tr>
</thead>
</table>

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10
<table>
<thead>
<tr>
<th>Environmental parameter can be successfully reversed upon completion of the proposed activity.</th>
<th>Degree of Mitigation: This describes the degree to which an impact on an environmental parameter can be successfully mitigated upon completion of the proposed project.</th>
<th>Irreplaceable Loss of Resources: This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.</th>
<th>Cumulative Impact: This describes the cumulative effect of the impacts on the environmental parameter. A cumulative effect/impact is an effect which in itself may not be significant, but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Partly reversible</td>
<td>1 The impact can be mitigated</td>
<td>1 No loss of resource</td>
<td>1 Negligible</td>
</tr>
<tr>
<td>3 Barely reversible</td>
<td>2 The impact can be partly mitigated</td>
<td>2 Marginal loss of resource</td>
<td>2 Low</td>
</tr>
<tr>
<td>4 Irreversible</td>
<td>3 Barely mitigated</td>
<td>3 Significant loss of resources</td>
<td>3 Medium</td>
</tr>
<tr>
<td>The impact is partly reversible but more intense mitigation measures</td>
<td>The impact is partly able to be mitigated</td>
<td>The impact will result in a complete loss of all resources</td>
<td>The impact would result in negligible to no cumulative effects</td>
</tr>
<tr>
<td>The impact is unlikely to be reversed even with intense mitigation measures</td>
<td>The impact is barely able to be mitigated</td>
<td>The impact will result in significant loss of resources</td>
<td>The impact would result in insignificant cumulative effects</td>
</tr>
<tr>
<td>The impact is irreversible and no mitigation measures exist</td>
<td>The impact is unable of being mitigated</td>
<td>The impact will result in significant loss of resources</td>
<td>The impact would result in minor cumulative effects</td>
</tr>
</tbody>
</table>

**Sources:**
- SIVEST Environmental Rating System Used to Classify Impacts
(c) Please describe the gaps in knowledge.

There are no significant gaps in knowledge.

(d) Please describe the underlying assumptions.

- It is assumed that no activities will take place outside the proposed development footprint.
- It is assumed that all the relevant mitigation measures specified in this report will be implemented in order to achieve acceptable level of impact and to ensure minimal impact on the surrounding environment.
- The assumption is made that all information on which this report is based are correct and truthful.

(e) Please describe the uncertainties.

Seasonal constraints on plant identifications.

SECTION H: RECOMMENDATION OF THE EAP

In my view (EAP), the information contained in this application form and the documentation attached hereto is sufficient to make a decision in respect of the activity applied for.

| YES | NO |

If “NO”, list the aspects that should be further assessed through additional specialist input/assessment or whether this application must be subjected to a Scoping & EIR process before a decision can be made:

Not Applicable

If “YES”, please indicate below whether in your opinion the activity should or should not be authorised:

Activity should be authorised:

| YES | NO |

Please provide reasons for your opinion

The proposed development is an expansion of existing farming practices and is in line with the land use of the surrounding area.

In order to increase production, De Goree Farm needs to expand the vineyard footprint on the Property. An increase in production and higher economic viability of the property will ensure sustainability of this land reform project. The target area is currently undeveloped and of low value to the Applicant. The proposed development is desirable in terms of government policies and frameworks.

The proposed development will have limited significant detrimental impacts to the environment. The target areas for cultivation have been subjected to previous disturbances in many sections. Most impact associated with the proposed development is considered to be Medium-Low or Low and mitigation measures would be effective in managing these impacts.

If you are of the opinion that the activity should be authorised, then please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an authorisation.

From a socio-economic and biodiversity point of view, its is the EAPs opinion that Layout Alternative A3 would be the best environmental option due to the following:

- Site A and B should be developed to its full extent to compensate the loss of Site D. Sites A and B have the highest soil potential. Although located within a terrestrial CBA, much of the areas are already disturbed and the sites are located on the edge of a larger natural CBA corridor. The site is bordered by an old quarry site towards the east.
- Site C should be developed to its full extent. Not located within a CBA and suitable soil.
- Site D should be excluded since it has the lowest soil potential. Excluding Site D will prevent the intrusion of agricultural fields into the continuous natural area north of the railway line.
• Alternative A 3 will not result in small agricultural or natural habitat fragments.

Construction Phase:

• Effective storm water and erosion management measures should be implemented (application of straw or mulch to protect open soil).
• Cleared land should be exposed for a minimum time possible, planted with intercrops and vineyards.
• The Applicant should only clear the land necessary to accommodate the development (as identified in the layout plans).
• No further development or disturbance may occur within the adjacent CBAs in order to maintain an uninterrupted natural biodiversity corridor (along the east of the target areas).
• Existing tracks should be used to access the site.
• Rocks and vegetation debris should not be dumped on adjacent natural vegetation.
• The Manager of the Vrolijkheid Nature Reserve (McGregor) as well as the Curator of the Karoo-Desert National Botanical Garden (Worcester) should be contacted prior to any development activities and given the opportunity to collect any plants on the target areas of the property which are of value for translocation to the nature reserve, botanical garden or another appropriate refuge.
• Should any human remains be disturbed, exposed or uncovered during excavations and earthworks for the proposed project, these should immediately be reported Heritage Western Cape (Ms Jenna Lavin or Ms Belinda Muti 021 483 9692).

Operational Phase:

• Effective irrigation scheduling should be practiced to enhance drainage and to conserve water.
• Effective erosion management must be implemented.
• The development must be restricted to the proposed footprint area.
• It is essential that no further development or disturbance occur within the adjacent CBAs and further east of the proposed development sites.

Duration and Validity:
Environmental authorisations are usually granted for a period of three years from the date of issue. Should a longer period be required, the applicant/EAP is requested to provide a detailed motivation on what the period of validity should be.

Three year authorization is adequate.
### SECTION I: APPENDICES

The following appendices must be attached to this report:

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
<th>Attached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix A:</td>
<td>Locality map</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix B:</td>
<td>Site plan(s)</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix C:</td>
<td>Photographs</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix D:</td>
<td>Biodiversity overlay map</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix E:</td>
<td>Permit(s) / license(s) from any other organ of state including service letters from the municipality</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix F:</td>
<td>Public participation information: including a copy of the register of interested and affected parties, the comments and responses report, proof of notices, advertisements and any other public participation information as required in Section C above.</td>
<td>✓</td>
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<tr>
<td>Appendix G:</td>
<td>Specialist Report(s)</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix H:</td>
<td>Environmental Management Programme</td>
<td>✓</td>
</tr>
<tr>
<td>Appendix I:</td>
<td>Additional information related to listed waste management activities (if applicable)</td>
<td>N/A</td>
</tr>
<tr>
<td>Appendix J:</td>
<td>Any Other (If applicable) (describe)</td>
<td>N/A</td>
</tr>
</tbody>
</table>
DECLARATIONS

THE APPLICANT

I …………………………………., in my personal capacity or duly authorised (please circle the applicable option) by ……………………………………………………… thereto hereby declare that I:

- regard the information contained in this report to be true and correct, and

- am fully aware of my responsibilities in terms of the National Environmental Management Act of 1998 ("NEMA") (Act No. 107 of 1998), the Environmental Impact Assessment Regulations ("EIA Regulations") in terms of NEMA (Government Notice No. R. 543 refers), and the relevant specific environmental management Act, and that failure to comply with these requirements may constitute an offence in terms of the environmental legislation;

- appointed the environmental assessment practitioner as indicated above, which meet all the requirements in terms of regulation 17 of GN No. R. 543, to act as the independent environmental assessment practitioner for this application;

- have provided the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;

- will be responsible for the costs incurred in complying with the environmental legislation including but not limited to –
  - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
  - costs incurred in respect of the undertaking of any process required in terms of the regulations;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the regulations;
  - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
  - the provision of security to ensure compliance with the applicable management and mitigation measures;

- am responsible for complying with the conditions that might be attached to any decision(s) issued by the competent authority;

- have the ability to implement the applicable management, mitigation and monitoring measures;

- hereby indemnify, the government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of, inter alia, the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible; and

- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Please Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

______________________________
Signature of the applicant:

______________________________
Name of company:

______________________________
Date:

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10
THE INDEPENDENT ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP)

I ................................., as the appointed independent environmental practitioner ("EAP") hereby declare that I:

• act/ed as the independent EAP in this application;
• regard the information contained in this report to be true and correct, and
• do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
• have and will not have no vested interest in the proposed activity proceeding;
• have disclosed, to the applicant and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
• am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
• have ensured that information containing all relevant facts in respect of the application was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
• have ensured that the comments of all interested and affected parties were considered, recorded and submitted to the competent authority in respect of the application;
• have kept a register of all interested and affected parties that participated in the public participation process;
• have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
• am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Note: The terms of reference must be attached.

______________________________
Signature of the environmental assessment practitioner:

______________________________
Name of company:

______________________________
Date:
THE INDEPENDENT PERSON WHO COMPLIED A SPECIALIST REPORT OR UNDERTOOK A SPECIALIST PROCESS

I ……………………………………., as the appointed independent specialist hereby declare that I:

• act/ed as the independent specialist in this application;
• regard the information contained in this report as it relates to my specialist input/study to be true and correct, and
• do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
• have and will not have no vested interest in the proposed activity proceeding;
• have disclosed, to the applicant, EAP and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
• am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 [specifically in terms of regulation 17 of GN No. R. 543] and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
• have ensured that information containing all relevant facts in respect of the specialist input/study was distributed or made available to interested and affected parties and the public and that participation by interested and affected parties was facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments on the specialist input/study;
• have ensured that the comments of all interested and affected parties on the specialist input/study were considered, recorded and submitted to the competent authority in respect of the application;
• have ensured that the names of all interested and affected parties that participated in terms of the specialist input/study were recorded in the register of interested and affected parties who participated in the public participation process;
• have provided the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; and
• am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

Note: The terms of reference must be attached.

Signature of the specialist:

Name of company:

Date:

DEA&DP Ref. No. E12/2/4/1-B1/11-1025/10