

**BASIC ASSESSMENT REPORT  
IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107  
OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS  
AMENDED)**

**October 2017**

**PROJECT TITLE**

**The Proposed Cultivation of Vineyards at Rustenberg Wines, Remainder of Farm 56,  
Schoongezicht, Stellenbosch**

**MARCH 2019**

<b>REPORT TYPE CATEGORY</b>	<b>REPORT REFERENCE NUMBER</b>	<b>DATE OF REPORT</b>
Pre-Application Basic Assessment Report (if applicable) <sup>1</sup>	16/3/3/6/7/1/B4/45/1340/18	May 2019
Draft Basic Assessment Report <sup>2</sup>		
Final Basic Assessment Report <sup>3</sup> or, if applicable Revised Basic Assessment Report <sup>4</sup> (strikethrough what is not applicable)		

**Notes:**

1. In terms of Regulation 40(3) potential or registered interested and affected parties, including the Competent Authority, may be provided with an opportunity to comment on the Basic Assessment Report prior to submission of the application but must again be provided an opportunity to comment on such reports once an application has been submitted to the Competent Authority. The Basic Assessment Report released for comment prior to submission of the application is referred to as the "Pre-Application Basic Assessment Report". The Basic Assessment Report made available for comment after submission of the application is referred to as the "Draft Basic Assessment Report". The Basic Assessment Report together with all the comments received on the report which is submitted to the Competent Authority for decision-making is referred to as the "Final Basic Assessment Report".
2. In terms of Regulation 19(1)(b) if significant changes have been made or significant new information has been added to the Draft Basic Assessment Report, which changes or information was not contained in the Draft Basic Assessment Report consulted on during the initial public participation process, then a Final Basic Assessment Report will not be submitted, but rather a "Revised Basic Assessment Report", which must be subjected to another public participation process of at least 30 days, must be submitted to the Competent Authority together with all the comments received.

**DEPARTMENTAL REFERENCE NUMBER(S)**

Pre-application reference number:	16/3/3/6/7/1/B4/45/1340/18
File reference number (EIA):	
NEAS reference number (EIA):	
File reference number (Waste):	
NEAS reference number (Waste):	
File reference number (Air Quality):	
NEAS reference number (Air Quality):	
File reference number (Other):	
NEAS reference number (Other):	

## CONTENT AND GENERAL REQUIREMENTS

### Note that:

1. The content of the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), any subsequent Circulars, and guidelines must be taken into account when completing this Basic Assessment Report Form.
2. This Basic Assessment Report is the standard report format which, in terms of Regulation 16(3) of the EIA Regulations, 2014 (as amended) must be used in all instances when preparing a Basic Assessment Report for Basic Assessment applications for an environmental authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and the EIA Regulations, 2014 (as amended) and/or a waste management licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) ("NEM:WA"), and/or an atmospheric emission licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA") when the Western Cape Government: Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority/Licensing Authority.
3. This report form is current as of October 2017. It is the responsibility of the Applicant/ Environmental Assessment Practitioner ("EAP") to ascertain whether subsequent versions of the report form have been released by the Department. Visit the Department's website at <http://www.westerncape.gov.za/eadp> to check for the latest version of this checklist.
4. The required information must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The tables may be expanded where necessary.
5. The use of "not applicable" in the report must be done with circumspection. All applicable sections of this report form must be completed. Where "not applicable" is used, this may result in the refusal of the application.
6. While the different sections of the report form 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.
7. 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 believing that the information is protected.
8. Unless otherwise indicated by the Department, one hard copy and one electronic copy of 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. Reasonable access to copies of this report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.
9. This Report must be submitted to the Department and the contact details for doing so are provided below.
10. Where this Department is also identified as the Licensing Authority to decide applications under NEM:WA or NEM:AQA, the submission of the Report must also be made as follows, for-
  - Waste management licence applications, this report must also (i.e., another hard copy and electronic copy) 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.
  - Atmospheric emissions licence applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (tel: 021 483 2798 and fax: 021 483 3254) at the same postal address as the Cape Town Office.

## DEPARTMENTAL DETAILS

CAPE TOWN OFFICE		GEORGE REGIONAL OFFICE
REGION 1 (City of Cape Town & West Coast District)	REGION 2 (Cape Winelands District & Overberg District)	REGION 3 (Central Karoo District & Eden District)
<p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1<sup>st</sup> Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 1) at: Tel.: (021) 483-5829 Fax: (021) 483-4372</p>	<p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 2) Private Bag X 9086 Cape Town, 8000</p> <p>Registry Office 1<sup>st</sup> Floor Utilitas Building 1 Dorp Street, Cape Town</p> <p>Queries should be directed to the Directorate: Development Management (Region 2) at: Tel.: (021) 483-5842 Fax: (021) 483-3633</p>	<p>Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530</p> <p>Registry Office 4<sup>th</sup> Floor, York Park Building 93 York Street George</p> <p>Queries should be directed to the Directorate: Development Management (Region 3) at: Tel.: (044) 805-8600 Fax: (044) 805 8650</p>

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## ACRONYMS USED IN THIS BASIC ASSESSMENT REPORT AND APPENDICES:

BAR	Basic Assessment Report
CBA	Critical Biodiversity Area
DEA	National Department of Environmental Affairs
DEA&DP	Western Cape Government: Environmental Affairs and Development Planning
DWS	National Department of Water and Sanitation
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESA	Ecological Support Area
HWC	Heritage Western Cape
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEM:AQA	National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
NEM:ICMA	National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008)
NEM:WA	National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
PPP	Public Participation Process

## DETAILS OF THE APPLICANT

Applicant / Organisation / Organ of State:	Simon William Barlow / Rustenberg Wines		
Contact person:	Simon William Barlow		
Postal address:	P.O. Box 33, Stellenbosch		
Telephone:	(021) 809 1200	Postal Code:	7599
Cellular:		Fax:	( )
E-mail:	simon@rustenberg.co.za		

## DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

Name of the EAP organisation:	EnviroAfrica cc		
Person who compiled this Report:	Clinton Geyser		
EAP Reg. No.:			
Contact Person (if not author):			
Postal address:	P. O. Box 5367, Helderberg		
Telephone:	(021) 8511616	Postal Code:	7446
Cellular:		Fax:	086 512 0154
E-mail:	clinton@enviroafrica.co.za		
EAP Qualifications:	<u>Clinton Geyser</u> : BSc; BSc (Hons); MSc. Environmental Management <u>Bernard de Witt</u> : B.Sc. Forestry (Stellenbosch); B.A. (Hons) Public Administration (Stellenbosch); National Diploma in Parks and Recreation Management; EIA Short course (UCT); ISO 14001 Auditors course (SABS)		

Please provide details of the lead EAP, including details on the expertise of the lead EAP responsible for the Basic Assessment process. Also attach his/her Curriculum Vitae to this BAR.

This Pre-Application Basic Assessment Report was prepared by Clinton Geyser who has a MSc. Degree in Environmental Management. He has been working as an Environmental Assessment Practitioner since 2009 and is currently employed at EnviroAfrica CC.

Report compiled by Clinton Geyser -

Qualifications:

- BSc. Earth Sciences, Majors in Geology and Geography and Environmental Management (1998 – 2000) and;
- BSc. (hons): Geography and Environmental Management (2001) and;
- MSc. Geography and Environmental Management (2002), all from the University of Johannesburg.

Expertise:

Clinton Geyser has over nine years' experience in the environmental management field as an Environmental Assessment Practitioner and as an Environmental Control Officer, having worked on a variety of projects in the Western, Eastern and Northern Cape. Previous completed applications include, but not limited to:

- Civil engineering infrastructure including pipelines, Waste Water Treatment Works, and roads in the Western and Northern Cape.
- Agricultural developments, including reservoirs and dams, in the Western and Northern Cape.
- Telecommunications masts in the Western and Eastern Cape
- Housing Developments in the Western and Northern Cape.
- Resort developments in the Western and Northern Cape.
- Cemeteries in the Western Cape
- Waste Management Licences in the Western Cape

#### Employment:

Previous employment as an EAP: Doug Jeffery Environmental Consultants (2009 – 2012)

Current employment: EnviroAfrica cc (2012 – present).

The whole process and report was supervised by Bernard de Witt who has more than 20 years' experience in environmental management and environmental impact assessments.

## EXECUTIVE SUMMARY OF THE BASIC ASSESSMENT REPORT:

### Introduction

It is proposed that approximately 2.9ha of vineyards (wine grapes) be developed on Rustenberg Wines, on Remainder of Farm 56, Schoongezicht, Stellenbosch. The proposed site was previously cleared to cultivate vines just over 10 years ago, but was never developed, and has been lying fallow since then.

An area of approximately 8ha block has been identified on the farm, however, only approximately 2.9ha will be developed due to the topography of the site.

The proposed development is needed by Rustenberg Wines to expand production. The proposed site is better suited to the cultivar that is intended to be planted.

Water for irrigation will be sourced from the existing farm dams, and the majority of the main irrigation lines are already developed, with only the sub lines for irrigation needing to be constructed.

### Environmental Requirements

The National Environmental Management Act (NEMA, Act 107 of 1998), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment and which require authorisation from the competent authority based on the findings of an Environmental Assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). In the Western Cape, these powers are delegated to the Department of Environmental Affairs & Development Planning (DEA&DP). According to the regulations of Section 24(5) of NEMA, authorisation is required for the following:

#### Government Notice R327 (Listing Notice 1):

**Activity no. 27:** The **clearance of an area** of 1 hectares or more, but less than 20 hectares of **indigenous vegetation**, except where such clearance of indigenous vegetation is required for;

- (i) the undertaking of a linear activity; or
- (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

#### Government Notice R324 (Listing Notice 3):

**Activity no. 12:** The **clearance of an area** of 300 square metres or more of **indigenous vegetation** except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.

### Site Description

The site was cleared for vineyards over 10 years ago, but was never developed and has been left fallow since. The site has since recovered, with generally intact natural vegetation found throughout the site, although with more disturbance and alien vegetation on the edges of the site.

The proposed site supports a single vegetation type namely Boland Granite Fynbos, which is listed as Vulnerable.

There is no longer any watercourse within the study area. Two existing farm irrigation dams are located adjacent to the site, approximately 50m and 70m from the proposed vineyards. The proposed activities are located approximately 75m upstream of the more natural wetland areas associated with these downstream dams and are unlikely to impact on these aquatic features.

The proposed site is located within the Ida's Valley Cultural Landscape National Heritage Site, declared on 13 February 2009, as part of the Cape Winelands Cultural Landscape (CWCL). The proposed cultivation of additional vineyards on this property therefore contributes in a positive way to this cultural landscape.

The area proposed for cultivation is underlain by the Stellenbosch batholith, which has zero palaeontological sensitivity. In addition, the site was cleared over 10 years ago, and has been left fallow since. As such, the likelihood of the proposed development negatively impacting on significant archaeological or palaeontological heritage is very low.

#### Water

The water for irrigation purposed will come from the dam below the site. The water comes from the existing yearly quota from Banhoek Irrigation Scheme for Rustenberg Wines. The vineyards adjacent to this site with a similar slope use roughly 12.8m<sup>3</sup>/ha/hr and therefore 153.6m<sup>3</sup>/ha/12hr irrigation. Therefore, approximately 1228.8m<sup>3</sup> water/month for the months Jan, February, March and April will be required for irrigation purposes.

#### Access

Access will be gained from existing internal farm roads.

#### Conclusion

The proposed development is needed by Rustenberg Wines to expand production. The proposed site is better suited to the cultivar that is intended to be planted, and according to the Soil Study, the site has very high potential soils for the cultivation of vines.

The proposed development would result in loss of 2.9 ha of ecologically intact Vulnerable Boland Granite Fynbos. The vegetation is regarded as having High Sensitivity despite evidence of past disturbance. However, the proposed layout plan is supported provided that the remainder of the site is set aside as a conservation area in perpetuity. This would ensure that a representative portion of the vegetation would remain and ensure that the ESA2 area is still functional on the northern and eastern sides. If this mitigation can be implemented the impact can be reduced to Low Negative Impact.

The proposed development is unlikely to impact on these aquatic features.

The proposed development is expected to have a very low likelihood of negatively impacting on significant archaeological or palaeontological heritage aspects.

Due to the nature of the development, the site and the surrounding land-uses, the proposed development is not expected to have any significant negative impact on the visual character of the area.

The proposed development will create an additional 14 job opportunities during the development phase, and approximately 3 additional job opportunities during the operational phase, 100% of which will go to previously disadvantaged individuals.

**Considering all the information, it is not envisaged that this proposed development will have a significant negative impact on the environment.**

**It is therefore recommended that this application be authorised with the necessary conditions of approval as described throughout this BAR.**

## SECTION A: PROJECT INFORMATION

### 1. ACTIVITY LOCATION

Location of all proposed sites:	The site is located on Remainder of Farm 56, Schoongezicht, Stellenbosch
Farm / Erf name(s) and number(s) (including Portions thereof) for each proposed site:	Farm 56, Schoongezicht, Stellenbosch
Property size(s) in m <sup>2</sup> for each proposed site:	216 hectares
Development footprint size(s) in m <sup>2</sup> :	2.9ha
Surveyor General (SG) 21 digit code for each proposed site:	C06700000000005600000

### 2. PROJECT DESCRIPTION

(a) Is the project a new development? If "NO", explain:

YES

NO

The project is the development of new vineyards.

(b) Provide a detailed description of the scope of the proposed development (project).

It is proposed that approximately 2.9ha of vineyards (wine grapes) be cultivated. The proposed site was previously cleared to cultivate vines just over 10 years ago, but was never developed, and has been lying fallow since then.

An area of approximately 8ha has been identified on the farm, however, only approximately 2.9ha will be developed due to the topography of the site.

The proposed development is needed by Rustenberg Wines to expand production. The proposed site is better suited to the cultivar that is intended to be planted.

Water for irrigation will be sourced from the existing farm dams, and the majority of the main irrigation lines are already developed, with only the sub lines for irrigation needing to be constructed.

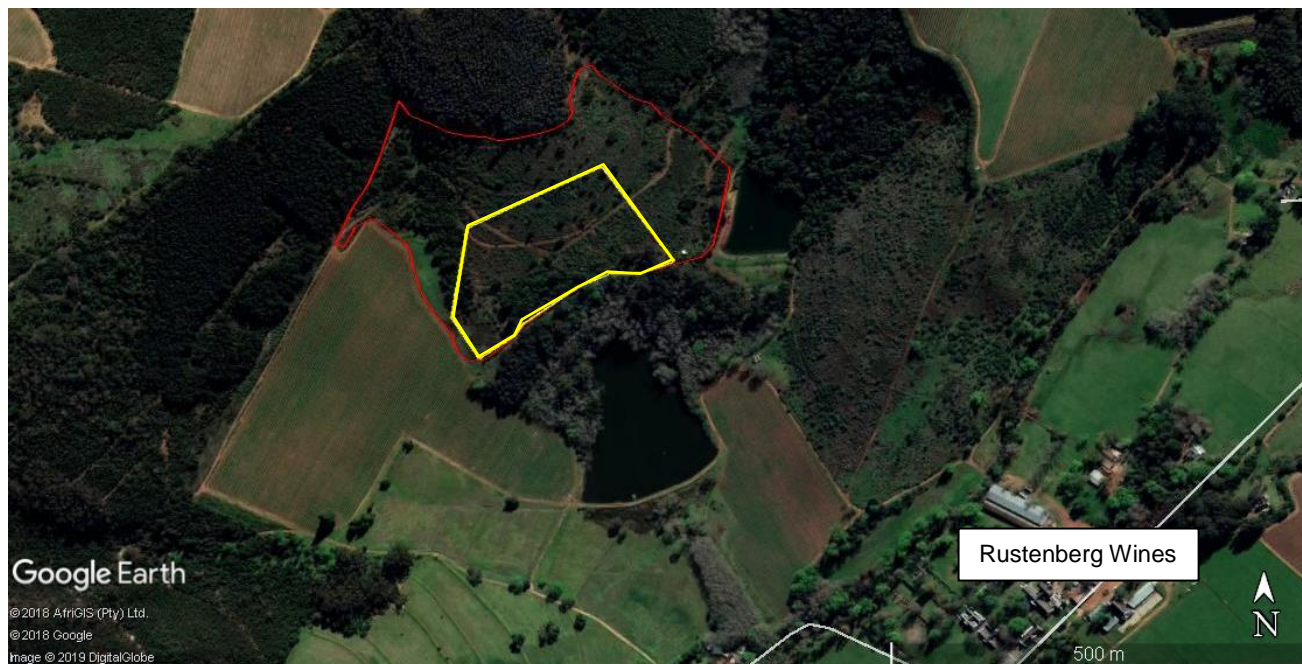


Figure 1: Google Earth image of the proposed site. The red polygon indicates the area initially proposed and considered viable for development, with the yellow area indicating the 2.9ha area that will be cleared and developed for vineyards.

**Please note:** This description must relate to the listed and specified activities in paragraph (d) below.

(c) Please indicate the following periods that are recommended for inclusion in the environmental authorisation:

(i)	the period within which commencement must occur,	5 years
(ii)	the period for which the environmental authorisation should be granted and the date by which the activity must have been concluded, where the environmental authorisation does not include operational aspects;	N/A
(iii)	the period that should be granted for the non-operational aspects of the environmental authorisation; and	N/A
(iv)	the period that should be granted for the operational aspects of the environmental authorisation.	Indefinite (permanent development)

**Please note:** The Department must specify the abovementioned periods, where applicable, in an environmental authorisation. In terms of the period within which commencement must occur, the period must not exceed 10 years and must not be extended beyond such 10 year period, unless the process to amend the environmental authorisation contemplated in regulation 32 is followed.

(d) List all the listed activities triggered and being applied for.

**Please note:** The onus is on the applicant to ensure that all the applicable listed activities are applied for and assessed as part of the EIA process. Please refer to paragraph (b) above.

**EIA Regulations Listing Notices 1 and 3 of 2014 (as amended):**

Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 1 (GN No. R. 327)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
27	The <b>clearance of an area</b> of 1 hectares or more, but less than 20 hectares of <b>indigenous vegetation</b> , except where such clearance of indigenous vegetation is required for;  (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	More than 1ha of indigenous vegetation is to be cleared to develop 2.9ha of vineyards	Development and operation
Listed Activity No(s):	Describe the relevant Basic Assessment Activity(ies) in writing as per Listing Notice 3 (GN No. R. 324)	Describe the portion of the development that relates to the applicable listed activity as per the project description.	Identify if the activity is development / development and operational / decommissioning / expansion / expansion and operational.
12	The <b>clearance of an area</b> of 300 square metres or more of <b>indigenous vegetation</b> except where such clearance of vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.	More than 1ha of indigenous vegetation is to be cleared to develop 2.9ha of vineyards. Part of the site is located within a CBA2 and ESA2 identified in the 2017 Western Cape Biodiversity Spatial Plan Framework (CapeNature, 2017)	Development and operation

**Waste management activities** in terms of the NEM: WA (GN No. 921):

Category A Listed Activity No(s):	Describe the relevant <u>Category A</u> waste management activity in writing as per GN No. 921	Describe the portion of the development that relates to the applicable listed activity as per the project description
	N/A	

**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**.

**Atmospheric emission activities** in terms of the NEM: AQA (GN No. 893):

Listed Activity No(s):	Describe the relevant atmospheric emission activity in writing as per GN No. 893	Describe the portion of the development that relates to the applicable listed activity as per the project description.
	N/A	

- (e) Provide details of all components (including associated structures and infrastructure) of the proposed development and attach diagrams (e.g., architectural drawings or perspectives, engineering drawings, process flowcharts, etc.).

Buildings Provide brief description below:	YES	NO
No buildings are proposed		
Infrastructure (e.g., roads, power and water supply/ storage) Provide brief description below:	YES	NO
Only the sub lines (pipelines) for irrigation purposes need to be installed. These are not expected to exceed 215m in length, and the pipe will either be 90 or 110mm diameter.		
Processing activities (e.g., manufacturing, storage, distribution) Provide brief description below:	YES	NO
N/A		
Storage facilities for raw materials and products (e.g., volume and substances to be stored) Provide brief description below:	YES	NO
N/A		
Storage and treatment facilities for effluent, wastewater or sewage: Provide brief description below:	YES	NO
N/A		
Storage and treatment of solid waste Provide brief description below:	YES	NO
N/A		
Facilities associated with the release of emissions or pollution. Provide brief description below:	YES	NO
N/A		
Other activities (e.g., water abstraction activities, crop planting activities) – Provide brief description below:	YES	NO
The water for irrigation purposed will come from the dam below the site. The water comes from the existing yearly quota from Banhoek Irrigation Scheme for Rustenberg Wines. The vineyards adjacent to this site with a similar slope use roughly 12.8m <sup>3</sup> /ha/hr and therefore 153.6m <sup>3</sup> /ha/12hr irrigation. Therefore, approximately 900m <sup>3</sup> water/month for the months Jan, February, March and April will be required for irrigation purposes.		

### 3. PHYSICAL SIZE OF THE PROPOSED DEVELOPMENT

(a) Property size(s): Indicate the size of all the properties (cadastral units) on which the development proposal is to be undertaken	2 160 000	m <sup>2</sup>
(b) Size of the facility: Indicate the size of the facility where the development proposal is to be undertaken	N/A	m <sup>2</sup>
(c) Development footprint: Indicate the area that will be physically altered as a result of undertaking any development proposal (i.e., the physical size of the development together with all its associated structures and infrastructure)	29 000	m <sup>2</sup>
(d) Size of the activity: Indicate the physical size (footprint) of the development proposal	29 000	m <sup>2</sup>
(e) For linear development proposals: Indicate the length (L) and width (W) of the development proposal	{L}	m
	{W}	m
(f) For storage facilities: Indicate the volume of the storage facility	N/A	m <sup>3</sup>
(g) For sewage/effluent treatment facilities: Indicate the volume of the facility (Note: the maximum design capacity must be indicated)	N/A	m <sup>3</sup>

### 4. SITE ACCESS

(a) Is there an existing access road?	YES	NO
(b) If no, what is the distance in (m) over which a new access road will be built?	m	

(c) Describe the type of access road planned:

N/A. Existing internal farm roads will be used

**Please note:** The position of the proposed access road must be indicated on the site plan.

## 5. DESCRIPTION OF THE PROPERTY(IES) ON WHICH THE LISTED ACTIVITY(IES) ARE TO BE UNDERTAKEN AND THE LOCATION OF THE LISTED ACTIVITY(IES) ON THE PROPERTY

- 5.1 Provide a description of the property on which the listed activity(ies) is/are to be undertaken and the location of the listed activity(ies) on the property, as well as of all alternative properties and locations (duplicate section below as required).

The property is a working wine farm (Rustenberg Wines). The farm consists of vineyards, a winery, offices, gardens, pastures for cattle grazing and natural/conservation areas.

The proposed site is located on a hillside, above one of the irrigation dams, and is located approximately 600m north-west of the offices/winery.

Coordinates of all the proposed activities on the property or properties (sites):	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec.)		
	33 °	53 '	29.60"	18°	53'	10.50"
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

**Note:** For land where the property has not been defined, the coordinates of the area within which the development is proposed must be provided in an addendum to this report.

- 5.2 Provide a description of the area where the aquatic or ocean-based activity(ies) is/are to be undertaken and the location of the activity(ies) and alternative sites (if applicable).

N/A

Coordinates of the boundary /perimeter of all proposed aquatic or ocean-based activities (sites) (if applicable):	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec)		
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"
	°	'	"	°	'	"

- 5.3 For a linear development proposal, please provide a description and coordinates of the corridor in which the proposed development will be undertaken (if applicable).

N/A

For linear activities:	Latitude (S): (deg.; min.; sec)			Longitude (E): (deg.; min.; sec)		
• Starting point of the activity	°	'	"	°	'	"
• Middle point of the activity	°	'	"	°	'	"
• End point of the activity	°	'	"	°	'	"

**Note:** For linear development proposals longer than 1000m, please provide an addendum with co-ordinates taken every 250m along the route. All important waypoints must be indicated and the GIS shape file provided digitally.

- 5.4 Provide a location map (see below) as **Appendix A** to this report that shows the location of the proposed development and associated structures and infrastructure on the property; as well as a detailed site development plan / site map (see below) as **Appendix B** to this report; and if applicable, all alternative properties and locations. The GIS shape files (.shp) for maps / site development plans must be included in the electronic copy of the report submitted to the competent authority.

Locality Map:	<p>The scale of the locality map must be at least 1:50 000. For linear development proposals 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:</p> <ul style="list-style-type: none"> <li>• an accurate indication of the project site position as well as the positions of the alternative sites, if any;</li> <li>• road names or numbers of all the major roads as well as the roads that provide access to the site(s)</li> <li>• a north arrow;</li> <li>• a legend;</li> <li>• a linear scale;</li> <li>• the prevailing wind direction (during November to April and during May to October); and</li> <li>• GPS co-ordinates (to 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.</li> </ul>
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	<p>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).</p> <p>For an ocean-based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken.</p> <p>Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94; WGS84 co-ordinate system.</p>
Site Plan:	<p>Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following:</p> <ul style="list-style-type: none"> <li>• The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be indicated on the plan, preferably together with a linear scale.</li> <li>• The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan.</li> <li>• 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.</li> <li>• The position of each element of the application as well as any other structures on the site must be indicated on the site plan.</li> <li>• Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the development <u>must</u> be indicated on the site plan.</li> <li>• Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.</li> <li>• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): <ul style="list-style-type: none"> <li>○ Watercourses / Rivers / Wetlands - including the 32 meter set back line from the edge of the bank of a river/stream/wetland;</li> <li>○ Flood lines (i.e., 1:100 year, 1:50 year and 1:10 year where applicable;</li> <li>○ Ridges;</li> <li>○ Cultural and historical features;</li> <li>○ Areas with indigenous vegetation (even if degraded or infested with alien species).</li> </ul> </li> <li>• Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted.</li> <li>• North arrow</li> </ul> <p>A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.</p> <p>The GIS shape file for the site development plan(s) must be submitted digitally.</p>

## 6. SITE PHOTOGRAPHS

Colour photographs of the site and its surroundings (taken on the site and taken from outside 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. The aerial photograph(s) 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 THE RECEIVING ENVIRONMENT

### Site/Area Description

For linear development proposals (pipelines, etc.) as well as development proposals 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 that is covered by each copy 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
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#### 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
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(b) Provide a description of the location in the landscape.

The proposed site is located on a hillside, near the upper part of a ridgeline near the foot of the Simonsberg Mountain.

#### 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	YES	NO	UNSURE
An area adjacent to or above an aquifer.	YES	NO	UNSURE
An area within 100m of a source of surface water	YES	NO	UNSURE
An area within 500m of a wetland	YES	NO	UNSURE
An area within the 1:50 year flood zone	YES	NO	UNSURE
A water source subject to tidal influence	YES	NO	UNSURE

(b) If any of the answers to the above is "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. The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

(c) Indicate the type of geological formation underlying the site.

Granite	Shale	Sandstone	Quartzite	Dolomite	Dolerite	Other (describe)
Provide a description.						
<p>According to the Soil Study (<b>Appendix G1</b>), the soil in the area is very uniform and all the profiles were classified as Oakleaf soil forms – Orthic A / neocutanic B horizon. Neocutanic horizons are ideal for root development. It provides an aerated, well-draining medium that is also favorable for a healthy microbial life. This is very high potential soils for the cultivation of vines.</p> <p>According to the Botanical Assessment (<b>Appendix G3</b>), the land surrounding the site is characterized by well-defined moderate- to steep-sloping rolling hills. Soils are loamy and well drained, derived from the Cape Granite Suite.</p> <p>According to the Heritage Screener (<b>Appendix G4</b>), the site is underlain by the Stellenbosch batholith.</p> <p>According to CapeFarmMapper, the soils in the area are Glenrosa and/or Mispah forms (other soils may occur), lime is rare or absent in the entire landscape. The Geology consists of Granite of the Stellenbosch Pluton, Cape Granite Suite, and conglomerate, grit and sandstone of the Franschoek Formation, Malmesbury Group; occasional dolerite.</p>						

#### 4. SURFACE WATER

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

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

(b) Provide a description.

<p>The site is located approximately 50m from an existing farm dam to the east of the site, 70m from the existing farm dam to the south of the site.</p> <p>On the western edge of the proposed development area, is a small valley. Various desktop analysis indicate that there is a watercourse located in this valley (although there are no mapped Freshwater Ecosystem Priority Area (FEPA) wetlands mapped in the National FEPA)(see figures 2 and 3 below). A freshwater verification was conducted on the site to determine if a watercourse is present in the valley.</p> <p>The freshwater verification (<b>Appendix G2</b>), found that:</p> <ul style="list-style-type: none"> <li>- The floor of the valley is fairly flat with no visible watercourse channel or indicative riparian or instream aquatic vegetation.</li> <li>- Inspection of the past aerial imagery taken in 1938, indicates that most of the study area with the exception of the very top of the hilltop was cultivated and that no wetland areas were present within this area. There is a narrow vegetated watercourse visible in the image. This feature seems to have been small and was no longer evident in the landscape today.</li> </ul>
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The freshwater verification (**Appendix G2**), concluded:

From the above, it can thus be said that **there is no longer any watercourse within the study area**. It can thus also be said that no water use activity would be triggered with the proposed cultivation of the valley as there would not be any change made to a bed. Banks or characteristic of any watercourse nor would any flow in a watercourse need to be impeded or diverted. The proposed activities are also located approximately 75m upstream of the more natural wetland areas associated with the downstream dams and are unlikely to impact on these aquatic features.



Figure 2: Google Earth image of the proposed site. The yellow polygon indicating the 2.9ha development area. The existing farm dams are indicated by the blue polygon, and the watercourse identified on desktop analysis (Cape Farm Mapper) is indicated by the blue dashed line (although no watercourse was observed in the freshwater verification by the freshwater specialist).

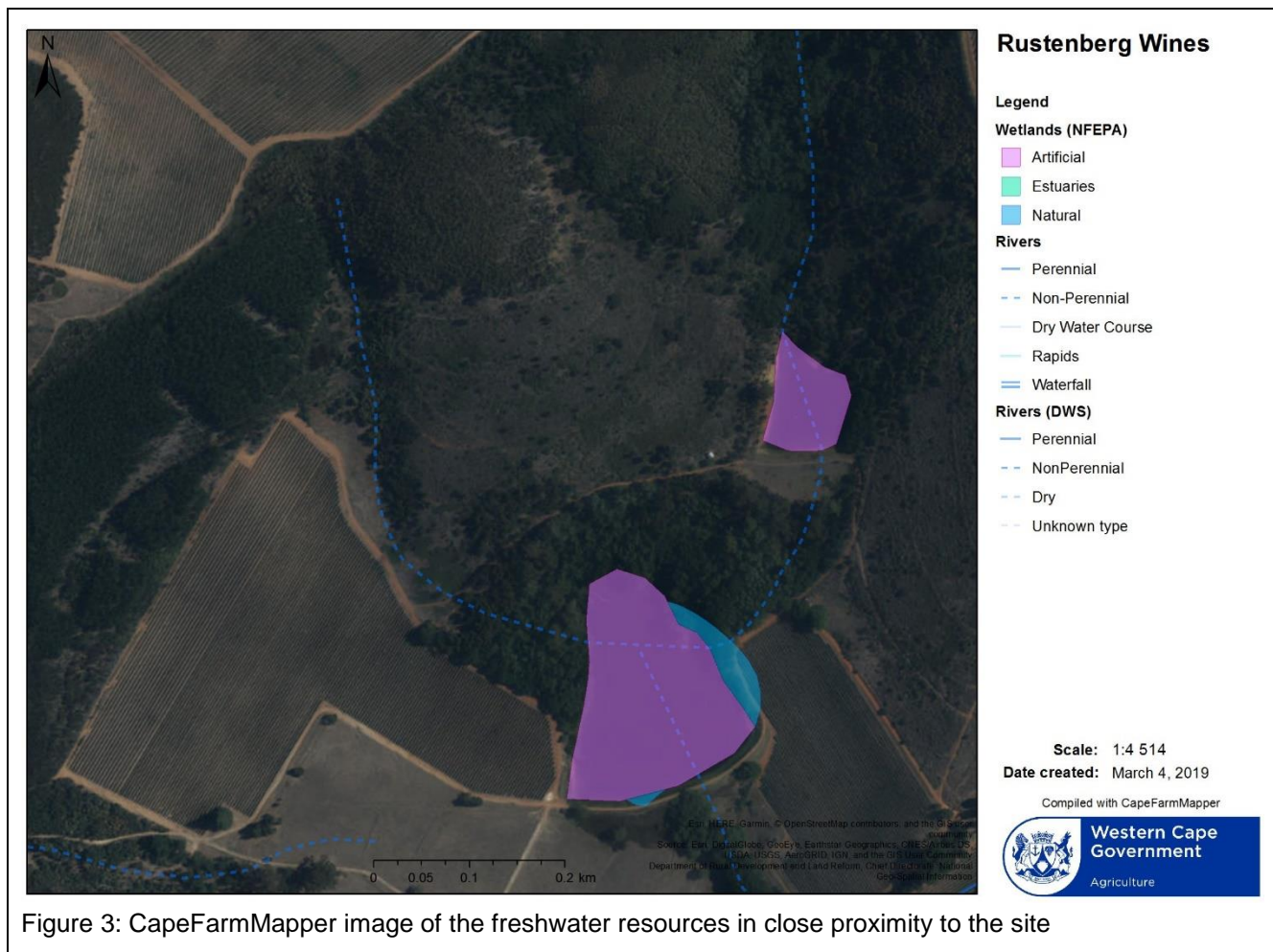


Figure 3: CapeFarmMapper image of the freshwater resources in close proximity to the site

## 5. THE SEAFRONT / SEA

- (a) Is the site(s) located within any of the following areas? (highlight the appropriate boxes).  
If the site or alternative site is closer than 100m to such an area, please provide the approximate distance in (m).

AREA	YES	NO	UNSURE	If "YES": Distance to nearest area (m)
An area within 100m of the high water mark of the sea	YES	NO	UNSURE	
An area within 100m of the high water mark of an estuary/lagoon	YES	NO	UNSURE	
An area within the littoral active zone	YES	NO	UNSURE	
An area in the coastal public property	YES	NO	UNSURE	
Major anthropogenic structures	YES	NO	UNSURE	
An area within a Coastal Protection Zone	YES	NO	UNSURE	
An area seaward of the coastal management line	YES	NO	UNSURE	
An area within the high risk zone (20 years)	YES	NO	UNSURE	
An area within the medium risk zone (50 years)	YES	NO	UNSURE	
An area within the low risk zone (100 years)	YES	NO	UNSURE	
An area below the 5m contour	YES	NO	UNSURE	
An area within 1km from the high water mark of the sea	YES	NO	UNSURE	
A rocky beach	YES	NO	UNSURE	
A sandy beach	YES	NO	UNSURE	

- (b) If any of the answers to the above is "YES" or "UNSURE", specialist input may be requested by the Department. (The 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

## 6. BIODIVERSITY

**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 development. To assist with the identification of the biodiversity occurring on site and the ecosystem status, consult <http://bgis.sanbi.org> or [BGIShelp@sanbi.org](mailto:BGIShelp@sanbi.org). Information is also available on compact disc ("cd") from the Biodiversity-GIS Unit, Tel.: (021) 799 8698. This information may be updated from time to time and it is the applicant/ EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) must be provided as an overlay map on the property/site plan as **Appendix D** to this report.

- (a) Highlight the applicable biodiversity planning categories of all areas on preferred and alternative sites and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category. Also describe the prevailing level of protection of the Critical Biodiversity Area ("CBA") and Ecological Support Area ("ESA") (how many hectares / what percentages are formally protected).

Systematic Biodiversity Planning Category	CBA	ESA	Other Natural Area ("ONA")	No Natural Area Remaining ("NNR")
If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan and the conservation management objectives				
Describe the site's CBA/ESA quantitative values (hectares/percentage) in relation to the prevailing level of protection of CBA and ESA (how many hectares / what percentages are formally protected locally and in the province)	<p>According to the Botanical Impact Assessment (<b>Appendix G3</b>), the <i>2017 Western Cape Biodiversity Spatial Plan</i> (CapeNature, 2017) assigns CBA2 and ESA2 conservation planning categories to the site:</p> <ul style="list-style-type: none"> <li>• CBA2 (Critical Biodiversity Area 2): about 5% of the site.</li> <li>• ESA2 (Ecological Support Area 2): about 90% of the site.</li> </ul>			

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

Habitat Condition	Percentage of habitat condition class (adding up to 100%) and area of each in square metre (m <sup>2</sup> )		Description and additional comments and observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing/harvesting regimes, etc.)
Natural	%	m <sup>2</sup>	
Near Natural (includes areas with low to moderate level of alien invasive plants)	68%	4.28 ha m <sup>2</sup>	According to the Botanical Impact Assessment ( <b>Appendix G3</b> ), the intact natural vegetation is homogeneous. The most obvious and dominant species are wild olive ( <i>Olea europaea</i> subsp. <i>africana</i> ) and <i>Searsia angustifolia</i> . They occur as either tall shrubs or small trees and occur in high numbers across the site. Other dominant species include <i>Anthospermum aethiopicum</i> , <i>Athanasia trifurcata</i> , <i>Cyanella hyacinthoides</i> and <i>Passerina corymbosa</i> .
Degraded (includes areas heavily invaded by alien plants)	31%	1.95ha m <sup>2</sup>	According to the Botanical Impact Assessment ( <b>Appendix G3</b> ), the dense alien vegetation is confined to the outer edges of the site but scattered individuals of exotic species occur throughout the intact natural vegetation. The species consist of a mix of gum, pine and acacia. The dominant species include golden wattle ( <i>Acacia pycnantha</i> ), Monterey pine ( <i>Pinus radiata</i> ) and gum ( <i>Eucalyptus</i> cf. <i>diversicolor</i> ). Species present in low densities and numbers include bramble ( <i>Rubus</i> sp.), long-leaf wattle, Australian cheesewood ( <i>Pittosporum undulatum</i> ) and Australian wattle ( <i>Acacia melanoxylon</i> ).
Transformed (includes cultivation, dams,	%	m <sup>2</sup>	Existing farm roads bisect the site.

urban, plantation, roads, etc.)			
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- (c) Complete the table to indicate:
- (i) the type of vegetation present on the site, including its ecosystem status; and
  - (ii) whether an aquatic ecosystem is present on/or adjacent to the site.

Terrestrial Ecosystems		Description of Ecosystem, Vegetation Type, Original Extent, Threshold (ha, %), Ecosystem Status
Ecosystem threat status as per the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Critically	
	Endangered	
	Vulnerable	According to the Botanical Impact Assessment ( <b>Appendix G3</b> ), the study area supports a single vegetation type namely <u>Boland Granite Fynbos</u> . The vegetation is listed as <b>VULNERABLE</b> in the List of Threatened Terrestrial Ecosystems in South Africa (Government Gazette, 2011). Please see table 1 below (as included as Table 1 in the Botanical Impact Assessment ( <b>Appendix G3</b> ).
	Least Threatened	

Table 1: Ecosystem Status

Vegetation type	Ecosystem status	^Criterion	*Original extent of Ecosystem	*Remaining natural area of ecosystem	*Proportion of ecosystem target protected	^Known number of species of special concern	~National conservation target
Boland Granite Fynbos	Vulnerable	D1	49 906 ha	59%	108%	56 Red Listed plant species (EX, EW, CR, EN & VU excl VU D2) and 23 endemic.	30%

Aquatic Ecosystems							
Wetland (including rivers, depressions, channelled and unchannelled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline		
YES	NO	UNSURE	YES	NO	YES	NO	

- (d) Provide a description of the vegetation type and/or aquatic ecosystem present on the site, including any important biodiversity features/information identified on the site (e.g. threatened species and special habitats). Clearly describe the biodiversity targets and management objectives in this regard.

According to the Botanical Impact Assessment (**Appendix G3**), the study area supports a single vegetation type namely Boland Granite Fynbos. The vegetation is listed as VULNERABLE in the List of Threatened Terrestrial Ecosystems in South Africa (Government Gazette, 2011).

According to the Botanical Impact Assessment (**Appendix G3**), the vegetation of the study area has undergone disturbance in the past and was apparently cleared for vineyards more than ten years ago but not developed. The outer edges of the site are the most disturbed. As a result, the edges are heavily invaded with alien vegetation. The central area is ecologically intact but old and senescent. The two main habitat categories include intact natural vegetation and alien vegetation infestations.

- The intact natural vegetation is homogeneous. The most obvious and dominant species are wild olive (*Olea europaea* subsp. *africana*) and *Searsia angustifolia*. They occur as either tall shrubs or small trees and occur in high numbers across the site. Other dominant species include *Anthospermum aethiopicum*, *Athanasia trifurcata*, *Cyanella hyacinthoides* and *Passerina corymbosa*.
- The dense alien vegetation is confined to the outer edges of the site but scattered individuals of exotic species occur throughout the intact natural vegetation. The species consist of a mix of gum, pine and acacia. The dominant species include golden wattle (*Acacia pycnantha*), Monterey pine (*Pinus radiata*) and gum (*Eucalyptus* cf. *diversicolor*). Species present in low densities and numbers include bramble (*Rubus* sp.), long-leaf wattle, Australian cheesewood (*Pittosporum undulatum*) and Australian wattle (*Acacia melanoxylon*).

Two existing farm irrigation dams (artificial wetland) are located adjacent to the site, approximately 50m and 70m from the proposed vineyards (see Section B.4.b. and Figure 2 above). The proposed development is therefore expected to have insignificant to no direct impact on the aquatic ecosystems. This was confirmed by the Freshwater Verification (**Appendix G2**), conducted on the site.

## 7. LAND USE OF THE SITE

**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 development.

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

- (a) Provide a description.

The site was cleared for vineyards over 10 years ago, but was never developed and has been left fallow since. The site has since recovered, with generally intact natural vegetation found throughout the site, although with more disturbance and alien vegetation on the edges of the site.

## 8. LAND USE CHARACTER OF THE 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.

**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 development.

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

- (b) Provide a description, including the distance and direction to the nearest residential area, industrial area, agri-industrial area.

The site is located approximately 2.7km north-east of Cloetesville, and 2.8km north of Idas Valley, the two closest residential areas. Plankenbrug, the nearest industrial area is located approximately 4.5km south-west of the site. The site is completely surrounded by agricultural activities (vineyards) and their associated land-uses. Please refer to Figure 4 below.



Figure 4: Google Earth image showing the surrounding land-uses, and nearest residential and industrial areas

## 9. SOCIO-ECONOMIC ASPECTS

- a) Describe the existing social and economic characteristics of the community in the vicinity of the proposed site, in order to provide baseline information (for example, population characteristics/demographics, level of education, the level of employment and unemployment in the area, available work force, seasonal migration patterns, major economic activities in the local municipality, gender aspects that might be of relevance to this project, etc.).

Stellenbosch is situated about 50 kilometers east of Cape Town, along the banks of the Eerste River. It's the second oldest European settlement in the Western Cape, after Cape Town. Today Stellenbosch is home to the University of Stellenbosch.

Stellenbosch's proximity to the growing Cape Metropolitan area and its status as a university town/educational centre has resulted in the emergence of high-tech service industries and innovation-related research facilities in the town.

The economy is well diversified, with the two biggest sectors being finance and business services (28,6%) and manufacturing (20,1%). These are both directly and indirectly rooted in the agricultural and scenic landscape of the Municipality. The Municipality also has vibrant agricultural and tourism sector.

The Stellenbosch, Paarl and Franschhoek valleys form the Cape Winelands, the larger of the two main wine growing regions in South Africa. Stellenbosch is the primary location for viticulture and viticulture research. The Stellenbosch wine route is a world renowned and popular tourist destination. Grapes grown in this area are mainly used for wine production.

The economically active population accounted for approximately 67 per cent of Stellenbosch's total population in 2007.

## 10. HISTORICAL AND CULTURAL ASPECTS

- (a) Please be advised that if section 38 of the NHRA is applicable to your proposed development, you are requested to furnish this Department with written comment from Heritage Western Cape as part of your public participation process. Heritage Western Cape must be given an opportunity, together with the rest of the I&APs, to comment on any Pre-application BAR, a Draft BAR, and Revised BAR.

Section 38 of the NHRA states the following:

"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;
- (c) any development or other activity which will change the character of a site-
  - (i) exceeding 5 000m<sup>2</sup> in extent; or
  - (ii) involving three or more existing erven or subdivisions thereof; or
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  - (iv) 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 000m<sup>2</sup> 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 NHRA, must also be investigated, assessed and evaluated. Section 3(2) states the following:

"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 paleontological 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 NHRA applicable to the proposed development?		YES	NO	UNCERTAIN
If YES or UNCERTAIN, explain:	According to the Heritage Screener ( <b>Appendix G4</b> ), the proposed development triggers Section 38(8) of the National Heritage Resources Act.			
Will the development impact on any national estate referred to in Section 3(2) of the NHRA?		YES	NO	UNCERTAIN
If YES or UNCERTAIN, explain:				
Will any building or structure older than 60 years be affected in any way?		YES	NO	UNCERTAIN

If YES or UNCERTAIN, explain:				
Are there any signs of culturally or historically significant elements, as defined in section 2 of the NHRA, including Archaeological or paleontological sites, on or close (within 20m) to the site?	YES	NO	UNCERTAIN	
If YES or UNCERTAIN, explain:	<p>According to the Heritage Screener (<b>Appendix G4</b>), the area proposed for cultivation is located within the Ida’s Valley Cultural Landscape National Heritage Site, declared on 13 February 2009, as part of the Cape Winelands Cultural Landscape (CWCL) with SAHRA Site ID: 9/2/084/0002. According to the Gazette Notice for this site; “The CWCL is significant because of its idyllic setting, rich history associated with living heritage and distinctive cultural and natural environment; and unique planned landscapes boasting an architectural and aesthetic form unique to South Africa. Of great importance is, it is a site of significance in relating to the history of slavery in South Africa. Ida's Valley is a typical and, at the same time, a special example of this cultural landscape type. It is particularly unspoilt in the context of the Cape Winelands generally.” The proposed cultivation of additional vineyards on this property therefore contributes in a positive way to this cultural landscape.</p> <p>The area proposed for cultivation is underlain by the Stellenbosch batholith, which has zero palaeontological sensitivity. In addition, the site was cleared over 10 years ago, and has been left fallow since. As such, the likelihood of the proposed development negatively impacting on significant archaeological or palaeontological heritage is very low.</p> <p>According to the Heritage Screener (<b>Appendix G4</b>), the site is located within the Ida’s Valley National Heritage Site and as such, a Section 27(18) permit application. This was submitted to the South African Heritage Resources Agency, and a permit (Case ID: 12895 Permit ID: 2833) dated 22 November 2018 has been received (see <b>Appendix E1</b>).</p>			

**Note:** If uncertain, the Department may request that specialist input be provided **and** Heritage Western Cape must provide comment on this aspect of the proposal. (Please note that a copy of the comments obtained from the Heritage Resources Authority must be appended to this report as Appendix E1).

## 11. APPLICABLE LEGISLATION, POLICIES, CIRCULARS AND/OR GUIDELINES

- (a) Identify all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to the development proposal and associated listed activity(ies) being applied for and that have been considered in the preparation of the BAR.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	ADMINISTERING AUTHORITY and how it is relevant to this application	TYPE Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)	DATE (if already obtained):
Conservation of Agricultural Resources Act 1983 (CARA)	Western Cape Department of Agriculture	Unknown – awaiting comment from Department of Agriculture	
National Heritage Resources Act (No. 25 of 1999)	South African Heritage Resources Agency	Section 27(18) permit application - permit (Case ID: 12895 Permit ID: 2833) received (see <b>Appendix E1</b> )	22 November 2018

- (b) Describe how the proposed development **complies with and responds** to the legislation and policy context, plans, guidelines, spatial tools, municipal development planning frameworks and instruments.

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds:
DEADP Guidelines	All guidelines were consulted and adhered to when undertaking this Basic Assessment Report.
National Environmental Management Act, 1998 (Act 107, 1998).	This application is being undertaken according to the National Environmental Management Act, 1998.

**Note:** Copies of any comments, permit(s) or licences received from any other Organ of State must be attached to this report as **Appendix E**.

## Section C: PUBLIC PARTICIPATION

The PPP must fulfil the requirements outlined in the NEMA, the EIA Regulations, 2014 (as amended) and if applicable, the NEM: WA and/or the NEM: AQA. This Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must also be taken into account.

1. Please highlight the appropriate box to indicate whether the specific requirement was undertaken or whether there was an exemption applied for.

In terms of Regulation 41 of the EIA Regulations, 2014 (as amended) -			
(a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of -			
(i) the site where the activity to which the application relates, is or is to be undertaken; and	YES	EXEMPTION	
(ii) any alternative site	YES	EXEMPTION	N/A
(b) giving written notice, in any manner provided for in Section 47D of the NEMA, to -			
(i) the occupiers of the site and, if the applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	EXEMPTION	N/A
(ii) owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;	YES	EXEMPTION	
(iii) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;	YES	EXEMPTION	
(iv) the municipality (Local and District Municipality) which has jurisdiction in the area;	YES	EXEMPTION	
(v) any organ of state having jurisdiction in respect of any aspect of the activity; and	YES	EXEMPTION	
(vi) any other party as required by the Department;	YES	EXEMPTION	N/A
(c) placing an advertisement in -			
(i) one local newspaper; or	YES	EXEMPTION	
(ii) any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;	YES	EXEMPTION	N/A
(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken	YES	EXEMPTION	N/A
(e) using reasonable alternative methods, as agreed to by the Department, in those instances where a person is desirous of but unable to participate in the process due to— (i) illiteracy; (ii) disability; or (iii) any other disadvantage.	YES	EXEMPTION	N/A
<b>If you have indicated that "EXEMPTION" is applicable to any of the above, proof of the exemption decision must be appended to this report.</b>			
Please note that for the NEM: WA and NEM: AQA, a notice must be placed in at least two newspapers circulating in the area where the activity applied for is proposed.			
If applicable, has/will an advertisement be placed in at least two newspapers?	YES	NO	
If "NO", then proof of the exemption decision must be appended to this report.			

2. Provide a list of all the State Departments and Organs of State that were consulted:

State Department / Organ of State	Date request was sent:	Date comment received:	Support / not in support
Western Cape Department of Agriculture – Landuse Management	02 October 2018		No comment received
Department of Water and Sanitation	02 October 2018		No comment received
CapeNature	02 October 2018	20 December 2019	Comment to be given on Draft BAR
Heritage Western Cape	02 October 2018		No comment received

Stellenbosch Municipality	02 October 2018		No comment received
Cape Winelands District Municipality	02 October 2018		No comment received

3. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated, or the reasons for not including them.  
(The detailed outcomes of this process, including copies of the supporting documents and inputs must be included in a Comments and Response Report to be attached to the BAR (see note below) as **Appendix F**).

**CapeNature:**

*“The area proposed for cultivation of vineyards is classified as Ecological Support Area (ESA) 2 with a strip of Critical Biodiversity Area (CBA) 2 along the westernmost section according to the Western Cape Biodiversity Spatial Plan (WCBSP). The natural vegetation that would have occurred on the site is Boland Granite Fynbos listed as Vulnerable. There is a watercourse mapped along the western section leading to an in-stream dam just south of the proposed cultivation area.”* – Noted. The vegetation type and conservation planning has been addressed in the Botanical Assessment (**Appendix G3**) as well as in Section B.6 of this report. The watercourse indicated on desktop maps has been ground-truthed, and no watercourse was described.

*“...both areas have been previously ploughed however the subject area was last ploughed over 10 years ago and hence is determined to have returned to natural vegetation in terms of NEMA and therefore triggers the 1 ha vegetation clearing threshold for a Vulnerable vegetation type in terms of NEMA.”* – Noted, a NEMA Application (this application) is therefore required before development can take place.

*“Since the area has been previously ploughed it is likely that the vegetation does not contain the full complement of species that would be typical of this vegetation type. However the precautionary principle must be applied and a botanical scan should be undertaken in late winter/spring to assess the conservation value of the area and identify the presence of any threatened species. The WCBSP will need to be taken into consideration.”* – Noted. This has been addressed in the Botanical Assessment (**Appendix G3**).

*“As mentioned above, there is a watercourse mapped along the western section of the site, with which the CBA 2 area is associated. It should be noted that there could be additional listed activities triggered in relation to the watercourse. It is recommended that there is no cultivation within a minimum of 32 m of the delineated watercourse. Should this be adhered to there would not be the need for an additional freshwater specialist scan, however a ground-truthed delineation of the watercourse and the 32 m buffer would be necessary.”* – Noted. A freshwater specialist was appointed to ground-truth the watercourse, and conducted a Freshwater Verification (Appendix G2) of the site. The freshwater verification concluded that **there is no longer any watercourse within the study area**. It can thus also be said that no water use activity would be triggered with the proposed cultivation of the valley as there would not be any change made to a bed. Banks or characteristic of any watercourse nor would any flow in a watercourse need to be impeded or diverted. The proposed activities are also located approximately 75m upstream of the more natural wetland areas associated with the downstream dams and are unlikely to impact on these aquatic features.

4. Provide a summary of any conditional aspects identified / highlighted by any Organs of State, which have jurisdiction in respect of any aspect of the relevant activity.

Please see above

**Note:**

Even if pre-application public participation is undertaken as allowed for by Regulation 40(3), it must be undertaken in accordance with the requirements set out in Regulations 3(3), 3(4), 3(8), 7(2), 7(5), 19, 40, 41, 42, 43 and 44.

If the “exemption” option is selected above and no proof of the exemption decision is attached to this BAR, the application will be refused.

A list of all the potential I&APs, including the Organs of State, notified and a list of all the registered I&APs must be submitted with the BAR. The list of registered I&APs must be opened, maintained and made available to any person requesting access to the register in writing.

The BAR must be submitted to the Department when being made available to I&APs, including the relevant Organs of State and State Departments which have jurisdiction with regard to any aspect of the activity, for a commenting period of at least 30 days. Unless agreement to the contrary has been reached between the Competent Authority and the EAP, the EAP will be responsible for the consultation with the relevant State Departments in terms of Section 24O and Regulation 7(2) – which consultation must happen simultaneously with the consultation with the I&APs and other Organs of State.

All the comments received from I&APs on the BAR must be recorded, responded to and included in the Comments and Responses Report included as **Appendix F** of the BAR. If necessary, any amendments made in response to comments received must be effected in the BAR itself. The Comments and Responses Report must also include a description of the PPP followed.

The minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded, must also be submitted as part of the public participation information to be attached to the final BAR as **Appendix F**.

Proof of all the notices given as indicated, as well as notice to I&APs of the availability of the Pre-Application BAR (if applicable), Draft BAR, and Revised BAR (if applicable) must be submitted as part of the public participation information to be attached to the BAR as **Appendix F**. In terms of the required "proof" the following must be submitted to the Department:

- a site map showing where the site notice was displayed, a dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
  - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
  - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
  - if a facsimile was sent, a copy of the facsimile report;
  - if an electronic mail was sent, a copy of the electronic mail sent; and
  - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

## SECTION D: NEED AND DESIRABILITY

**Note:** Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website: <http://www.westerncape.gov.za/eadp>. In this regard, it must be noted that the *Guideline on Need and Desirability in terms of the Environmental Impact Assessment (EIA) Regulations, 2010* published by the national Department of Environmental Affairs on 20 October 2014 (GN No. 891 on Government Gazette No. 38108 refers) (available at: [http://www.gov.za/sites/www.gov.za/files/38108\\_\\_891.pdf](http://www.gov.za/sites/www.gov.za/files/38108__891.pdf)) also applied to EIAs in terms of the EIA Regulations, 2014 (as amended).

1. Is the development permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The property is zoned Agricultural.			
2. Will the development be in line with the following?			
(a) Provincial Spatial Development Framework ("PSDF").	YES	NO	Please explain
The proposed development is the development of vineyards in an agricultural area, on property zoned for agricultural use.			
(b) Urban edge / edge of <b>built environment</b> for the area.	YES	NO	Please explain
The site is located outside the urban edge			
(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 <b>IDP and SDF</b> ?).	YES	NO	Please explain
<p>According to the Stellenbosch Municipality Spatial Development Framework (SDF) (2017), together with water, Stellenbosch's fertile soils represent its most important resource for long-term sustainability. Wine and vegetable products are the district municipality's largest export products, and agriculture contributes to over 18% of the municipality's employment. Between 1996 and 2001, 64% of all new jobs created in the CWDM were in the agricultural sector. Agriculture is a significant employer of people who are not sufficiently skilled to find work in other sectors with skills shortages.</p> <p>Due to the nature of the wine and fruit industries, many of these jobs are seasonal, and ways to create year-round employment in other sectors should be sought where appropriate. There are strong linkages between the agricultural sector and manufacturing, wholesale, trade and accommodation, and financial services sectors (particularly with agri-tourism).</p> <p>In recent years, the agricultural industry has experienced difficulties in attracting capital as high premiums paid for the lifestyle aspects of Stellenbosch farm land have driven property prices up and financial returns for farmers down. High and medium potential agricultural land has been rezoned to inappropriate uses (e.g. upmarket housing, golf courses, RDP housing, certain types of tourism development and poor mining rehabilitation). This has the following negative impacts:</p> <ol style="list-style-type: none"> <li>1) Fertile agricultural land is rendered unproductive, compromising the region's ability to ensure food security.</li> <li>2) Low skilled farm labourers have less opportunities for employment, contributing to the poverty gap.</li> <li>3) Opportunities for biodiversity conservation are reduced.</li> </ol> <p>The principles listed in the SDF applicable to the proposed development include:</p> <ul style="list-style-type: none"> <li>- Land outside of existing and proposed urban settlements should be used for agricultural production, biodiversity conservation, scenic quality and agri-tourism.</li> <li>- Intensification of agriculture, biodiversity conservation and agri-tourism should be promoted in farming areas outside of urban settlements.</li> <li>- Outside of formal conservation areas, land owners should be encouraged to conserve vegetation classified by SANBI as Endangered or Critically Endangered (particularly along ridge lines) and to link to existing conservancies (e.g. through the Cape Nature Stewardship Program).</li> <li>- Tourism that reinforces the municipality's sense of place (e.g. agri-tourism, wine tourism and eco-tourism) should be encouraged in the settlements and on rural land outside the urban edge.</li> </ul>			

(d) An Environmental Management Framework ("EMF") adopted by this Department. (e.g., Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)	YES	NO	Please explain
<p>The proposed development is not expected to compromise the Stellenbosch Municipality: Environmental Management Framework (2014). According to the Stellenbosch Municipality EMF, the Idas Valley has been identified as an area of high agricultural potential.</p> <p>It also states that the region's extensive agricultural areas, particularly those under vineyards and orchards, also attribute scenic value and character to the region, which is valued by both the local inhabitants and visitors. This is a significant contributor to the value of the area as one of South Africa's premier tourist destinations.</p>			
(e) Any <b>other</b> Plans (e.g., Integrated Waste Management Plan (for waste management activities), etc.)).	YES	NO	Please explain
N/A			
3. Is the land use (associated with the project being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (in other words, is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?	YES	NO	Please explain
The proposed development is the development of vineyards in an agricultural area, on property zoned for agricultural use.			
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 on the proposed site at this point in time?	YES	NO	Please explain
The proposed development is the development of vineyards in an agricultural area, on property zoned for agricultural use. It will not lead to the expansion of the town.			
5. Does the community/area need the project and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g., development is a National Priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
<p>The proposed development will lead to jobs in both the construction and operational phase of the development. According to Rustenberg Wines, a positive impact can also be foreseen as there will be more seasonal contract work needed for young vine training, yearly summer canopy management and harvesting, which will benefit the local communities (especially Khayamandi).</p> <p>It will also contribute to the agricultural and tourism industry in the area, as well as to the cultural landscape.</p>			
6. Are the necessary <b>services</b> available together with adequate unallocated municipal capacity (at the time of application), or must additional capacity be created to cater for the project? (Confirmation by the relevant municipality in this regard must be attached to the BAR as <b>Appendix E</b> .)	YES	NO	Please explain
N/A. The proposed development will not be using any services, and none from the municipality.			
7. Is this project provided for in the <b>infrastructure planning</b> 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 BAR as <b>Appendix E</b> .)	YES	NO	Please explain
N/A. The proposed development is the development of vineyards in an agricultural area, on property zoned for agricultural use.			
8. Is this project part of a <b>national programme</b> to address an issue of national concern or importance?	YES	NO	Please explain
The proposed development is the development of vineyards in an agricultural area, on property zoned for agricultural use.			

9. Do location factors favour this land use (associated with the development proposal and associated listed activity(ies) applied for) at this place? (This relates to the contextualisation of the proposed land use on the proposed site within its broader context.)	YES	NO	Please explain
<p>Although the site is on a hillslope, the topography is still conducive to vineyard development. The site is also in rather close proximity to the main area of the Rustenberg Wines farm.</p> <p>According to the Soil Study (<b>Appendix G1</b>), provides an aerated, well-draining medium that is also favorable for a healthy microbial life. This is very high potential soils for the cultivation of vines. Vineyards on these soils would require minimum inputs in terms of nutrition and irrigation would only be supplementary.</p> <p>The area is also surrounded by agricultural developments, including vineyards.</p>			
10. Will the development proposal or the land use associated with the development proposal applied for, impact on sensitive natural and cultural areas (built and rural/natural environment)?	YES	NO	Please explain
<p>Although the development will lead to the loss of 2.9ha of vegetation (ecologically vulnerable Boland Granite Fynbos) with a high sensitivity, according to the Botanical Assessment (<b>Appendix G3</b>), the layout plan is supported provided that the remainder of the site is set aside as a conservation area in perpetuity. This would (a) ensure that a representative portion of the vegetation would remain and (b) ensure that the ESA2 area is still functional on the northern and eastern sides.</p> <p>According to the Heritage Screener (<b>Appendix G4</b>), the area proposed for cultivation is located within the Ida's Valley Cultural Landscape National Heritage Site, declared on 13 February 2009, as part of the Cape Winelands Cultural Landscape (CWCL) with SAHRA Site ID: 9/2/084/0002. According to the Gazette Notice for this site; "The CWCL is significant because of its idyllic setting, rich history associated with living heritage and distinctive cultural and natural environment; and unique planned landscapes boasting an architectural and aesthetic form unique to South Africa. Of great importance is, it is a site of significance in relating to the history of slavery in South Africa. Ida's Valley is a typical and, at the same time, a special example of this cultural landscape type. It is particularly unspoilt in the context of the Cape Winelands generally." The proposed cultivation of additional vineyards on this property therefore contributes in a positive way to this cultural landscape.</p> <p>The area proposed for cultivation is underlain by the Stellenbosch batholith, which has zero palaeontological sensitivity. In addition, the site was cleared over 10 years ago, and has been left fallow since. As such, the likelihood of the proposed development negatively impacting on significant archaeological or palaeontological heritage is very low.</p>			
11. Will the development impact on people's health and well-being (e.g., in terms of noise, odours, visual character and 'sense of place', etc.)?	YES	NO	Please explain
<p>The proposed development is the development of vineyards in an agricultural area, on property zoned for agricultural use.</p> <p>The proposed development is not expected to impact on people's health or well-being.</p> <p>Due to the nature of the development, the site and the surrounding land-uses, the proposed development is not expected to have any significant negative impact on the visual character of the area.</p>			
12. Will the proposed development or the land use associated with the proposed development applied for, result in unacceptable opportunity costs?	YES	NO	Please explain
<p>No unacceptable opportunity costs are expected.</p>			
13. What will the <b>cumulative impacts</b> (positive and negative) of the proposed land use associated with the development proposal and associated listed activity(ies) applied for, be?			
<p>According to the Botanical Assessment (<b>Appendix G3</b>), cumulative impacts are those impacts linked to increased loss of vegetation type or the ecosystems listed in the National List of Threatened Terrestrial Ecosystems (Government Gazette, 2011). Cumulative impacts are assessed as the overall impact of loss of habitat in relation to loss of the same or similar habitat at a local scale due to past, present and future habitat loss. Loss of 2.9 ha of VULNERABLE Boland Granite Fynbos would result in loss of 0.009% of the remaining 296 46 ha of the ecosystem. Cumulative impacts are thus assessed as being likely to be <b>Low Negative</b>. Note</p>			

however, that with every small amount of the ecosystem being lost, the cumulative loss and potential increase in threat status rises. Thus, cumulative impacts can be highly misleading.			
14. Is the development the <b>best practicable environmental option</b> for this land/site?	YES	NO	Please explain
<p>The best practicable environmental option would be not to develop (no-go option). However, the socio-economic benefits of the development will not be realised.</p> <p>According to the Botanical Assessment (Appendix G3), the affected site is unlikely to change much with the resultant no change to the <i>status quo</i>.</p>			
15. What will the benefits be to society in general and to the local communities?	Please explain		
<p>The proposed development will create an additional 14 job opportunities during the development phase, and approximately 3 additional job opportunities during the operational phase, 100% of which will go to previously disadvantaged individuals.</p> <p>Rustenberg Wines foresee a positive impact as there will be more seasonal contract work needed for young vine training, yearly summer canopy management and harvesting, which will benefit the local communities (especially Khayamandi).</p>			
16. Any <b>other</b> need and desirability considerations related to the proposed development?	Please explain		
<p>The proposed development is needed by Rustenberg Wines to expand production. The site is also better suited to the cultivar that is intended to be planted, and according to the Soil Study, the site has very high potential soils for the cultivation of vines.</p>			
17. Describe how the <b>general objectives of Integrated Environmental Management</b> as set out in Section 23 of the NEMA have been taken into account:			
<p>The general objectives of Integrated Environmental Management have been taken into account through the following:</p> <ul style="list-style-type: none"><li>- The actual and potential impacts of the activity on the environment, socio-economic conditions and cultural heritage have been identified, predicted and evaluated, as well as the risks and consequences and alternatives and options for mitigation of activities, with a view to minimizing negative impact, maximizing benefits and promoting compliance with the principles of environmental management – <i>please refer to Section F below</i>.</li><li>- The effects of the activity on the environment have been considered before actions taken in connection with them – <i>alternatives have been considered and investigated (please refer to Section E below)</i>.</li><li>- Adequate and appropriate opportunity for public participation is ensured through the public participation process</li><li>- The environmental attributes have been considered in the management and decision-making of the activity – <i>an EMP has been included (<b>Appendix H</b>) with the proposed activity and must adhere to the requirements of all applicable state Authorities</i>.</li></ul>			
18 Describe how the <b>principles of environmental management</b> as set out in Section 2 of the NEMA have been taken into account:			
<p>The principles of environmental management as set out in section 2 of NEMA have been taken into account. The principles pertinent to this activity include:</p> <ul style="list-style-type: none"><li>- People and their needs have been placed at the forefront while serving their physical, psychological, developmental, cultural and social interests – <i>the proposed activity will have a beneficial impact on people, especially to the agricultural and tourism industry and Rustenberg Wines, its occupants and staff</i>.</li><li>- Development must be socially, environmentally and economically sustainable. Where disturbance of ecosystems, loss of biodiversity, pollution and degradation, and landscapes and sites that constitute the nation's cultural heritage cannot be avoided, are minimised and remedied. - <i>Although the activity is expected to have little significant environmental impact, these impacts have been considered, and mitigation measures have been put in place. This is dealt with in the EMP (<b>Appendix H</b>)</i>.</li><li>- Where waste cannot be avoided, it is minimised and remedied through the implementation and adherence of EMP.</li></ul>			

- The use of non-renewable natural resources is responsible and equitable – *no exploitation of non-renewable natural resources occurs with the proposed activity.*
- The negative impacts on the environment and on people's environmental rights have been anticipated and prevented, and where they cannot be prevented, are minimised and remedied - *refer to Section F below.*
- The interests, needs and values of all interested and affected parties will be taken into account in any decisions through the Public Participation Process
- The social, economic and environmental impacts of the activity have been considered, assessed and evaluated, including the disadvantages and benefits – *refer to Section F below.*
- The effects of decisions on all aspects of the environment and all people in the environment have been taken into account, by pursuing what is considered the best practicable environmental option – *the proposed activity is expected to have minimal/negligible environmental impacts, especially after mitigation measures as described under Section F and in the EMP are implemented.*

## SECTION E: DETAILS OF ALL THE ALTERNATIVES CONSIDERED

**Note:** Before completing this section, first consult this Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014 (as amended), any subsequent Circulars, and guidelines available on the Department's website <http://www.westerncape.gov.za/eadp>.

The EIA Regulations, 2014 (as amended) defines "alternatives" as "*in relation to a proposed activity, means different means of fulfilling the general purpose and requirements of the activity, which may include alternatives to the—*

(a) property on which or location where the activity is proposed to be undertaken;

(b) type of activity to be undertaken;

(c) design or layout of the activity;

(d) technology to be used in the activity; or

(e) operational aspects of the activity;

(f) and includes the option of not implementing the activity;"

The NEMA (section 24(4)(a) and (b) of the NEMA, refers) 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 the NEMA and the National Environmental Management Principles set out in the 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 (section 23 of NEMA, refers) 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 the NEMA.

The identification, evaluation, consideration and comparative assessment of alternatives directly relate to the management of impacts. Related to every identified impact, alternatives, modifications or changes to the activity must be identified, evaluated, considered and comparatively considered to:

- in terms of negative impacts, firstly avoid a negative impact altogether, or if avoidance is not possible alternatives to better mitigate, manage and remediate a negative impact and to compensate for/offset any impacts that remain after mitigation and remediation; and
- in terms of positive impacts, maximise impacts.

### 1. DETAILS OF THE IDENTIFIED AND CONSIDERED ALTERNATIVES AND INDICATE THOSE ALTERNATIVES THAT WERE FOUND TO BE FEASIBLE AND REASONABLE

**Note:** A full description of the investigation of alternatives must be provided and motivation if no reasonable or feasible alternatives exists.

(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:

Two site alternatives have been considered, both located on Rustenberg Wines property (Remainder of Farm 56, Schoongezicht).

Alternative 1 is located approximately 650m south-west of the Rustenberg Wines winery/office, and Alternative 2 (Preferred Alternative) is located approximately 550m north-west of the Rustenberg Wines winery/office (see Figure 5 below)

Alternative 1 is approximately 11ha in size and is also located on the hill slope. The site has been previously terraced but is now fallow, and only used for cattle grazing and film shoots. There is little to no natural vegetation present on site.

However, according to the Soil Study conducted on the site (**Appendix G1**), 82% of the soil in alternative 1 is of medium to low potential for producing quality wines. According to the Soil Study, “... *The main reasons for the low potential were that the soils are very shallow and the compact clays in the subsoil would severely restrict root growth. The vines would consequently rely heavily on irrigation as the shallow root zone would not be able to store enough water to support the vines and their crop during the season. This would put pressure on the water balance of the farm as a whole, as the other vineyards are all irrigated supplementary. The development would thus not be possible as vineyards on these soils would require much more water to ensure good quality grapes...*”

Alternative 1 is thus not a viable option.

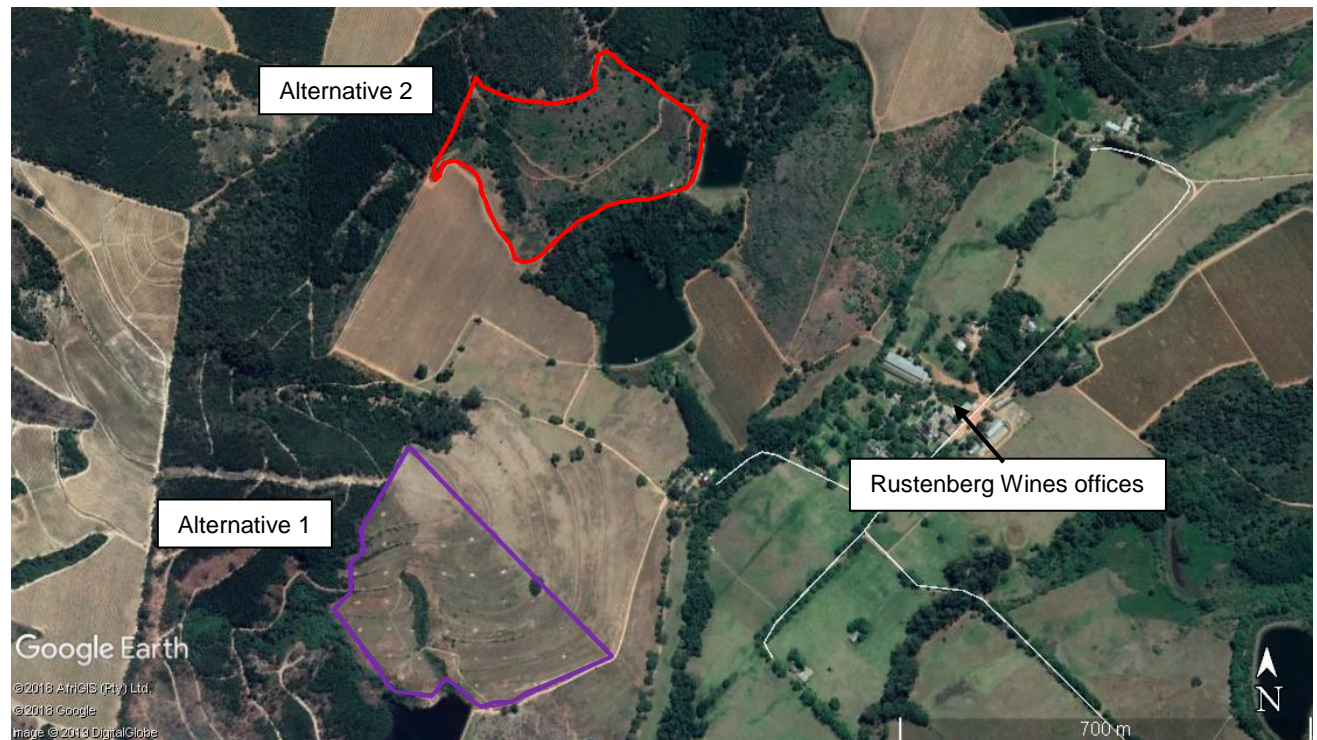


Figure 5: Google Earth image of the proposed site alternatives. Alternative 1 is indicated by the purple polygon, and Alternative 2 (preferred alternative) indicated by the red polygon.



Figure 6: General view of Alternative 1, looking north-west from the entrance road.

According to the Soil Study (**Appendix G1**), the soil in the area 2 (Alternative 2 – preferred alternative) is very uniform and all the profiles were classified as Oakleaf soil forms – Orthic A / neocutanic B horizon. Neocutanic horizons are ideal for root development. It provides an aerated, well-draining medium that is also favorable for a healthy microbial life.

This is very high potential soils for the cultivation of vines. Vineyards on these soils would require minimum inputs in terms of nutrition and irrigation would only be supplementary.

Alternative 2 is therefore the preferred site, as the soils are ideal for vineyard development, and are the only viable option on the property.

- (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 activity alternatives have been considered. Rustenberg Wines is a working wine farm, and additional vineyards is required to meet the increase in demand for their wine.

- (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:

As discussed above, Alternative 2 is the only viable site alternative due to the soil characteristics.

However, development of the entire site would not be possible due to the topography and possible impacts on the natural vegetation. Of the 8ha of identified as Alternative 2, only about 6ha was initially intended to be developed.

After a site survey was conducted by a land surveyor, a 2.9ha portion of the site was identified that would be suitable for vineyard development (see Figure 7 below). This would also leave a significant portion of the site undeveloped, mitigating the impact on the natural vegetation. According to the Botanical Assessment (**Appendix G3**), this would ensure that a representative portion of the vegetation would remain and ensure that the ESA2 area is still functional on the northern and eastern sides.



Figure 7: Google Earth image showing the final development layout (yellow polygon – 2.9ha), with the preferred site (Alternative 2, Preferred site alternative).

- (d) **Technology** alternatives (e.g., to reduce resource demand and increase 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:

N/A. This application is for additional vineyards, required to meet the growing demand for Rustenberg Wines.

- (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:

N/A. This application is for additional vineyards, and there are no operational alternatives considered

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

This is the option of not developing new vineyards on the site. The demand for expanded production will therefore not be met.

This would mean that no-development would take place and the proposed site will remain as is.

Although this option would result in no potential negative environmental impacts, the socio-economic benefits from implementing the activity would not be achieved.

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

According to the Botanical Assessment (**Appendix G3**), the 'No Go' or no development scenario takes into consideration the impact associated with the no development option. It is a prediction of the future state of the affected area in the event of no agricultural activities taking place and is based on the current and/or anticipated future land use. In this instance, the affected site is unlikely to change much with the resultant no change to the *status quo*. If the landowner does not manage the land properly the area will probably become infested with invasive alien plants. Thus, given the land owner's responsibility to manage invasive plants and with regard to 'Duty of Care', the assumption is made that the land would improve ecologically under the No Go option.

- (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:

No other alternatives have been considered

- (h) Provide a **summary** of all alternatives investigated and the outcome of each investigation:

Two site alternatives were initially considered by the Applicant. Alternative 1, which has little to no natural vegetation on site and the potential impact on vegetation would be negligible. However, it was considered not viable as a soil study conducted on the site concluded that the soils at Alternative 1 had a medium to low potential for producing quality wines.

A second site alternative was then considered by the Applicant, Alternative 2. Although this site has more natural vegetation, the soil conditions make this site ideal for growing grapes. According to the soil study, the soils have very high potential for the cultivation of vines and that the vineyards on these soils would require minimum inputs in terms of nutrition and irrigation would only be supplementary. Therefore, Alternative 2 is the only available, viable site on the farm for developing new vineyards.

Within Alternative 2, the size and extent of the vineyards was also considered. Initially, approximately 6ha was considered for clearing and cultivation. However, due to investigation of the site by a land surveyor, and the findings of the Botanical Impact Assessment, this was decreased to 2.9ha, but still be viable for the Applicant.

- (i) Provide a detailed **motivation for not further considering** the alternatives that were found not feasible and reasonable, including a description and proof of the investigation of those alternatives:

No other site alternatives were considered, as the only available areas within Rustenberg Wines are the two sites discussed above.

## 2. PREFERRED ALTERNATIVE

- (a) Provide a **concluding statement** indicating the preferred alternative(s), including preferred location, site, activity and technology for the development.

The Preferred site Alternative (Alternative 2), is the only viable site option for the Applicant. Although this site was cleared of vegetation over 10 years ago, it has recovered and has intact natural vegetation and would mean that up to 2.9ha of natural vegetation will need to be cleared.

However, this site is the only viable option as the soil conditions of the site have very high potential for the cultivation of vines, with no other suitable, viable options on the property.

## SECTION F: ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE ALTERNATIVES

**Note:** The information in this section must be DUPLICATED for all the feasible and reasonable ALTERNATIVES.

### 1. DESCRIBE THE ENVIRONMENTAL ASPECTS ASSOCIATED WITH THE PROPOSED DEVELOPMENT AND ITS ALTERNATIVES, FOCUSING ON THE FOLLOWING:

(a) Geographical, geological and physical aspects:

The proposed site is located on a hillside, near the upper part of a ridgeline near the foot of the Simonsberg Mountain.

According to the Soil Study (**Appendix G1**), the soil in the area is very uniform and all the profiles were classified as Oakleaf soil forms – Orthic A / neocutanic B horizon. Neocutanic horizons are ideal for root development. It provides an aerated, well-draining medium that is also favorable for a healthy microbial life. This is very high potential soils for the cultivation of vines.

According to the Botanical Assessment (**Appendix G3**), the land surrounding the site is characterized by well-defined moderate- to steep-sloping rolling hills. Soils are loamy and well drained, derived from the Cape Granite Suite.

According to the Heritage Screener (**Appendix G4**), the site is underlain by the Stellenbosch batholith.

According to CapeFarmMapper, the soils in the area are Glenrosa and/or Mispah forms (other soils may occur), lime is rare or absent in the entire landscape. The Geology consists of Granite of the Stellenbosch Pluton, Cape Granite Suite, and conglomerate, grit and sandstone of the Franschhoek Formation, Malmesbury Group; occasional dolerite.

(b) Ecological aspects:

Will the proposed development and its alternatives have an impact on CBAs or ESAs? If yes, please explain: Also include a description of how the proposed development will influence the quantitative values (hectares/percentage) of the categories on the CBA/ESA map.	YES	NO
According to the Botanical Assessment ( <b>Appendix G3</b> ), the 2017 <i>Western Cape Biodiversity Spatial Plan</i> (CapeNature, 2017) assigns CBA2 and ESA2 conservation planning categories to the site. CBA2 (Critical Biodiversity Area 2) makes up about 5% of the considered site and ESA2 (Ecological Support Area 2) about 90% of the site. However, since only 2.9ha of the considered site will be cleared for the development, most of the CBA2 will be avoided.		
According to the Botanical Assessment ( <b>Appendix G3</b> ), most of the site is an ESA2, which corresponds reasonably well to the distribution of the intact vegetation. The patches and designation of CBA2 sites is not clear, since there appears to be no distinction between the habitats assigned as ESA2 and CBA2.		
Will the proposed development and its alternatives have an impact on terrestrial vegetation, or aquatic ecosystems (wetlands, estuaries or the coastline)? If yes, please explain:	YES	NO
According to the Botanical Assessment ( <b>Appendix G3</b> ), the activity would require clearance of the vegetation by completely removing it from development area. This would result in the clearance of 2.9 ha of the site.		
The proposed development is not expected to have any significant impacts on any aquatic ecosystems. According to the Freshwater Opinion ( <b>Appendix G2</b> ), the proposed activities are located approximately 75m upstream of the more natural wetland areas associated with the downstream dams and are unlikely to impact on these aquatic features.		
Will the proposed development and its alternatives 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 explain:	YES	NO
According to the Botanical Assessment ( <b>Appendix G3</b> ), no threatened plant species will be impacted by the development.		

Describe the manner in which any other biological aspects will be impacted:		
Due to the nature and location of the development, no other significant biological impacts are expected.		
Will the proposed development also trigger section 63 of the NEM: ICMA?	YES	NO
<p>If yes, describe the following:</p> <p>(i) the extent to which the applicant has in the past complied with similar authorisations;</p> <p>(ii) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development proposal or listed activity is consistent with the purpose for establishing and protecting those areas;</p> <p>(iii) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;</p> <p>(iv) the likely socio-economic impact if the listed activity is authorised or is not authorised;</p> <p>(v) the likely impact of coastal environmental processes on the proposed development;</p> <p>(vi) whether the development proposal or listed activity—</p> <p>(a) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;</p> <p>(b) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17 of NEM: ICMA;</p> <p>(c) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18 of NEM: ICMA;</p> <p>(d) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;</p> <p>(e) is likely to be significantly damaged or prejudiced by dynamic coastal processes;</p> <p>(f) would substantially prejudice the achievement of any coastal management objective; or</p> <p>(g) would be contrary to the interests of the whole community;</p> <p>(vii) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land;</p> <p>(viii) whether the proposed development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and</p> <p>(ix) the objects of NEM: ICMA, where applicable.</p>		
N/A		

(c) Social and Economic aspects:

What is the expected capital value of the project on completion?	R1 564 339
What is the expected yearly income or contribution to the economy that will be generated by or as a result of the project?	R 15000 x 8 tonnes x 8 hectares = +/- R 960 000
Will the project contribute to service infrastructure?	YES NO
Is the project a public amenity?	YES NO
How many new employment opportunities will be created during the development phase?	14 jobs
What is the expected value of the employment opportunities during the development phase?	R 27625 x 8 ha = R 221 000
What percentage of this will accrue to previously disadvantaged individuals?	100 %
How will this be ensured and monitored (please explain):	
Rustenberg Wines planting contractor is 100% black owned and all his staff is 100% previously disadvantaged.	
How many permanent new employment opportunities will be created during the operational phase of the project?	+/- 3 people
What is the expected current value of the employment opportunities during the first 10 years?	R 354 790
What percentage of this will accrue to previously disadvantaged individuals?	100 %
How will this be ensured and monitored (please explain):	
Rustenberg Wines will only hire previously disadvantaged people as this will also boost our employment equity credentials.	

Any other information related to the manner in which the socio-economic aspects will be impacted:

Rustenberg Wines foresee a positive impact as there will be more seasonal contract work needed for young vine training, yearly summer canopy management and harvesting, which will benefit the local communities (especially Khayamandi)

(d) Heritage and Cultural aspects:

According to the Heritage Screener (**Appendix G4**), the area proposed for cultivation is located within the Ida's Valley Cultural Landscape National Heritage Site, declared on 13 February 2009, as part of the Cape Winelands Cultural Landscape (CWCL) with SAHRA Site ID: 9/2/084/0002. According to the Gazette Notice for this site; "The CWCL is significant because of its idyllic setting, rich history associated with living heritage and distinctive cultural and natural environment; and unique planned landscapes boasting an architectural and aesthetic form unique to South Africa. Of great importance is, it is a site of significance in relating to the history of slavery in South Africa. Ida's Valley is a typical and, at the same time, a special example of this cultural landscape type. It is particularly unspoilt in the context of the Cape Winelands generally." The proposed cultivation of additional vineyards on this property therefore contributes in a positive way to this cultural landscape.

The area proposed for cultivation is underlain by the Stellenbosch batholith, which has zero palaeontological sensitivity. In addition, the site was cleared over 10 years ago, and has been left fallow since. As such, the likelihood of the proposed development negatively impacting on significant archaeological or palaeontological heritage is very low.

## 2. WASTE AND EMISSIONS

(a) Waste (including effluent) management

Will the development proposal produce waste (including rubble) during the development phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	m <sup>3</sup>	
Any soil excavated will be used in the development of the terraces. Cleared natural vegetation will not be removed from the farm but used as mulch and compost on site. No other waste is expected to be produced.		

Will the development proposal produce waste during its operational phase?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type?	m <sup>3</sup>	
N/A		

Will the development proposal require waste to be treated / disposed of on site?	YES	NO
If yes, indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	m <sup>3</sup>	
N/A		
If no, where and how will the waste be treated / disposed of? Please explain. Indicate the types of waste (actual type of waste, e.g. oil, and whether hazardous or not) and estimated quantity per type per phase of the proposed development to be treated/disposed of?	m <sup>3</sup>	
N/A		
Has the municipality or relevant authority confirmed that sufficient capacity exists for treating / disposing of the waste to be generated by the development proposal? If yes, provide written confirmation from the municipality or relevant authority. N/A	YES	NO
Will the development proposal 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 exists for treating / disposing of the waste to be generated by the development proposal? Provide written confirmation from the facility. <b>N/A</b>		YES	NO
Does the facility have an operating license? (If yes, please attach a copy of the licence.)		YES	NO
Facility name:			
Contact person:			
Cell:	Postal address:		
Telephone:	Postal code:		
Fax:	E-mail:		

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

**N/A. Cleared natural vegetation will not be removed from the farm but used as mulch and compost on site.**

(b) Emissions into the atmosphere

Will the development proposal produce emissions that will be released into the atmosphere?	YES	NO
If yes, does this require approval in terms of relevant legislation?	YES	NO
If yes, what is the approximate volume(s) of emissions released into the atmosphere?		m <sup>3</sup>
Describe the emissions in terms of type and concentration and how these will be avoided/managed/treated/mitigated:		
<b>N/A.</b>		

### 3. WATER USE

(a) Indicate the source(s) of water for the development proposal by highlighting the appropriate box(es).

Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other	The project will not use water
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**Note:** Provide proof of assurance of water supply (e.g. Letter of confirmation from the municipality / water user associations, yield of borehole)

(b) 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:		m <sup>3</sup>
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(c) Does the development proposal require a water use permit / license from DWS?	YES	NO
If yes, please submit the necessary application to the DWS and attach proof thereof to this application as an Appendix.		

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

Alternative 2 site location is preferred, due to the soil conditions, which would also minimise irrigation requirements. According to the Soil Report (**Appendix G1**), the soils have a high potential for the cultivation of vines. Vineyards on these soils would require minimum inputs in terms of nutrition and irrigation would only be supplementary.

The relatively high clay content ensures that the subsoil can act as an effective reservoir to store the winter rainwater to be used by the vines during the growing season.

### 4. POWER SUPPLY

(a) Describe the source of power e.g. municipality / Eskom / renewable energy source.

**N/A.**

(b) If power supply is not available, where will power be sourced?

**N/A.**

## 5. ENERGY EFFICIENCY

- (a) Describe the design measures, if any, that have been taken to ensure that the development proposal will be energy efficient:

N/A.

- (b) Describe how alternative energy sources have been taken into account or been built into the design of the project, if any:

N/A.

## 6. TRANSPORT, TRAFFIC AND ACCESS

Describe the impacts in terms of transport, traffic and access.

No impacts in terms of transport, traffic and access are expected. Existing farm roads will be used.

## 7. NUISANCE FACTOR (NOISE, ODOUR, etc.)

Describe the potential nuisance factor or impacts in terms of noise and odours.

The proposed activity is not expected to create any potential nuisance, noise or odours. The proposed development is the establishment of vineyards in an agricultural area.

**Note:** Include impacts that the surrounding environment will have on the proposed development.

## 8. OTHER

No other impacts are expected.

## SECTION G: IMPACT ASSESSMENT, IMPACT AVOIDANCE, MANAGEMENT, MITIGATION AND MONITORING MEASURES

### 1. METHODOLOGY USED IN DETERMINING AND RANKING ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WITH THE ALTERNATIVES

- (a) Describe the **methodology** used in determining and ranking the nature, significance consequences, extent, duration and probability of potential environmental impacts and risks associated with the proposed development and alternatives.

The assessment criteria is based on and described within DEAT (2002) Impact Significance, Integrated Environmental Management, Information Series

- (b) Please describe any gaps in knowledge.

There are no significant gaps of knowledge that have been identified, that may influence the decision on the application by the Competent Authority.

- (c) Please describe the underlying assumptions.

The following assumptions are made:

- The information on which the report is based (i.e. project information), provided by the Applicant and the Specialists, is correct.
- The construction and operation/management of this proposed development will be in line with the recommendations in this report, which will be enforced by the implementation of detailed Environmental Management Programme.

- (d) Please describe the uncertainties.

There are no uncertainties that we are aware of at present.

- (e) Describe adequacy of the assessment methods used.

The Basic Assessment Report for the proposed development is being undertaken with sustainable development as a goal. The assessment looked at the impacts of the proposals on the environment and assesses the significance of these, as well as the possible avoidance of negative impacts. Where negative impacts could not be avoided, mitigation measures have been proposed, to reduce the anticipated impacts to acceptable levels. This is to ensure that the development makes *"equitable and sustainable use of environmental and natural resources for the benefit of present and future generations"*.

### 2. IDENTIFICATION, ASSESSMENT AND RANKING OF IMPACTS TO REACH THE PROPOSED ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE WITHIN THE SITE

**Note:** In this section the focus is on the identified issues, impacts and risks that influenced the identification of the alternatives. This includes how aspects of the receiving environment have influenced the selection.

- (a) List the identified impacts and risks for each alternative.

Alternative 1:	for example, choose from: geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / etc.
Alternative 2:	for example, choose from: geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / etc.
Alternative x:	for example, choose from: geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / etc.
No-go Alternative:	

- (b) Describe the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts can be reversed; may cause irreplaceable loss of resources; and can be avoided, managed or mitigated.

The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. (The EAP has to select the relevant impacts identified in blue in the table below for each alternative and repeat the table for each impact and risk).

**Please refer to Appendix J**

Preferred Alternative	Geology / geohydrological / ecological / socio-economic / heritage and cultural-historical / noise / visual / etc.
<b>PLANNING, DESIGN AND DEVELOPMENT PHASE</b>	
<b>Potential impact and risk:</b>	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	

<b>OPERATIONAL PHASE</b>	
<b>Potential impact and risk:</b>	
Nature of impact:	
Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	

<b>DECOMMISSIONING AND CLOSURE PHASE</b>	
<b>Potential impact and risk:</b>	
Nature of impact:	

Extent and duration of impact:	
Consequence of impact or risk:	
Probability of occurrence:	
Degree to which the impact may cause irreplaceable loss of resources:	
Degree to which the impact can be reversed:	
Indirect impacts:	
Cumulative impact prior to mitigation:	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	
Degree to which the impact can be avoided:	
Degree to which the impact can be managed:	
Degree to which the impact can be mitigated:	
Proposed mitigation:	
Residual impacts:	
Cumulative impact post mitigation:	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	

**Note:** The EAP may decide to include this section as Appendix J to the BAR.

(c) Provide a summary of the site selection matrix.

**Please refer to Appendix J**

The proposed development is expected to have a Low negative impact.

(d) Outcome of the site selection matrix.

**Construction phase.**

Botanical Impacts – **Low (Negative)**

Freshwater Impacts - **Negligible to no impact expected**

Loss of cultural or historic aspects – **Low (Negative)**

Socio-economic impacts (Job creation) – **Low (Positive)**

Dust impact - **Low (Negative)**

Visual impact – **Negligible to no impact**

Traffic impact – **No impact expected**

**Operational Phase**

Botanical Impacts – **Low (Negative)**

Freshwater Impacts - **Negligible to no impact expected**

Loss of cultural or historic aspects – **The activity is not expected to have any impact on historic aspects on the site**

Socio-economic impacts (Job creation) – **Low (Positive)**

Noise impact – **The activity is not expected to have any noise impacts during the operational phase**

Visual impacts – **The activity is not expected to have any visual impacts during the operational phase**

**Decommissioning**

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

### 3. SPECIALIST INPUTS/STUDIES, FINDINGS AND RECOMMENDATIONS

**Note:** Specialist inputs/studies must be attached to this report as **Appendix G** and must comply with the content requirements set out in Appendix 6 of the EIA Regulations, 2014 (as amended). Also take into account the Department's Circular EADP 0028/2014 (dated 9 December 2014) on the "One Environmental Management System" and the EIA Regulations, 2014, any subsequent Circulars, and guidelines available on the Department's website (<http://www.westerncape.gov.za/eadp>).

Provide a summary of the findings and impact management measures identified in any specialist report and an indication of how these findings and recommendations have been included in the BAR.

According to the Botanical Assessment (**Appendix G3**), the proposed agricultural expansion at Rustenberg Wines would result in loss of 2.9 ha of ecologically intact VULNERABLE Boland Granite Fynbos. The vegetation is regarded as having **High Sensitivity** despite evidence of past disturbance. The site was apparently cleared for vineyards more than ten years ago but was not developed at the time. The natural vegetation has recovered remarkably well since lying fallow, however, the margins of the site have a heavy infestation of invasive alien plants. The site is important with regard to the 2017 WCBSP since it serves as a key connectivity site, linking ecological processes to the east, south and west.

It is concluded that the proponent's layout plan is supported provided that the remainder of the site is set aside as a conservation area in perpetuity. This would (a) ensure that a representative portion of the vegetation would remain and (b) ensure that the ESA2 area is still functional on the northern and eastern sides. If this mitigation can be implemented the impact can be reduced to **Low Negative Impact**.

In addition to the above, the following recommendations should be followed:

- All invasive alien plants must be cleared from the site and remainder of the landowner's property.
- An invasive alien plant monitoring, eradication and control plan should be compiled to effectively remove all infestations on the property. This will allow for a degree of natural passive restoration of natural vegetation.

According to the Heritage Screener (**Appendix G4**), the area proposed for cultivation is located within the Ida's Valley Cultural Landscape National Heritage Site. The proposed cultivation of additional vineyards on this property contributes in a positive way to this cultural landscape.

The area proposed for cultivation is underlain by the Stellenbosch batholith, which has zero palaeontological sensitivity. In addition, the site was cleared over 10 years ago, and has been left fallow since. As such, the likelihood of the proposed development negatively impacting on significant archaeological or palaeontological heritage is very low.

The proposed development is not expected to have any significant impacts on any aquatic ecosystems. According to the Freshwater Opinion (**Appendix G2**), the proposed activities are located approximately 75m upstream of the more natural wetland areas associated with the downstream dams and are unlikely to impact on these aquatic features.

### 4. ENVIRONMENTAL IMPACT STATEMENT

Provide an environmental impact statement of the following:

(i) A summary of the key findings of the EIA.

See Section G.3 above.

No significant negative environmental impacts are expected, although a Medium (without mitigation) to Low (with mitigation) can be expected in terms of vegetation loss and loss of ecological processes.

The expected positive benefits of the proposed development (job creation and expansion of Rustenberg Wines vineyards/wine production) are expected to exceed the negative impacts.

(ii) Has a map of appropriate scale been provided, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffers? <b>See Figures 9 and 20 of the Botanical Assessment (Appendix G3).</b>	YES	NO
(iii) A summary of the positive and negative impacts that the proposed development and alternatives will cause in the environment and community.		
<p><b>Positive Impacts</b></p> <ul style="list-style-type: none"> <li>- The proposed development will create jobs during the construction and operational phases, most of which will be for previously disadvantaged individuals</li> <li>- Rustenberg Wines will be able to expand their wine production</li> </ul> <p><b>Negative Impacts</b></p> <ul style="list-style-type: none"> <li>- The proposed development will have a Low negative impact as a result of the removal of natural vegetation as well as the loss of ecological processes</li> <li>- The proposed development is not expected to have any significant negative impact on freshwater resources, or heritage resources on site.</li> </ul>		

## 5. IMPACT MANAGEMENT, MITIGATION AND MONITORING MEASURES

- (a) Based on the assessment, describe the impact management, mitigation and monitoring measures as well as the impact management objectives and impact management outcomes included in the EMP. The EMP must be attached to this report as Appendix H.

- The remainder of the site is set aside as a conservation area in perpetuity.
- All invasive alien plants must be cleared from the site and remainder of the landowner's property.
- An invasive alien plant monitoring, eradication and control plan should be compiled to effectively remove all infestations on the property. This will allow for a degree of natural passive restoration of natural vegetation.

- (b) Describe any provisions for the adherence to requirements that are prescribed in a Specific Environmental Management Act relevant to the listed activity or specified activity in question.

None

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

Under South African environmental legislation, the Applicant / Employer is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts. Rustenberg Wines as the Applicant / Employer therefore has overall and total environmental responsibility to ensure that the implementation of the construction phase of this EMP complies with the relevant legislation and the conditions of the environmental authorisation.

The developer will be responsible for the development and implementation of the conditions of the Environmental Authorisation in terms of the design of the development and construction thereof. The developer will thus be responsible for the implementation of this EMP.

The applicant has shown commitment to implement management, mitigation and monitoring measures as specified in the recommendations in and the EMP.

- (d) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

No significant rehabilitation is foreseen. Management of any potential negative impacts and rehabilitation will be to the benefit of Rustenberg Wines, in terms of success of the vineyards and tourism to the farm.

- (e) Provide the details of any financial provisions for the management of negative environmental impacts, rehabilitation and closure of the proposed development.

See above

- (f) Describe any assumptions, uncertainties, and gaps in knowledge which relate to the impact management, mitigation and monitoring measures proposed.

The following assumptions are made:

- The information on which the report is based (i.e. project information) is correct.
- The construction and management of this proposed development will be in line with the recommendations in this report, which will be enforced by the implementation of detailed Environmental Management Plan. Much of the long-term success lies in the effective implementation of the measures prescribed in the Environmental Management Programme.

There are no significant gaps of knowledge that have been identified.

There are no uncertainties that we are aware of at present.

## SECTION H: RECOMMENDATIONS OF THE EAP AND SPECIALISTS

(a) In my view as the appointed EAP, the information contained in this BAR and the documentation attached hereto is sufficient to make a decision in respect of the listed activity(ies) applied for.		YES	NO
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(b) If the documentation attached hereto is sufficient to make a decision, please indicate below whether, in your opinion, the listed activity(ies) should or should not be authorised:		
Listed activity(ies) should be authorised:	YES	NO
Provide reasons for your opinion		
<p>No significant negative environmental impacts have been found that should prevent the development to take place. Although negative impacts have been described, particularly with regards to vegetation loss, this impact can be mitigated to an extent that the significance of the loss of vegetation is considered Low.</p> <p>The activity is not expected to have any significant negative impacts on freshwater resources.</p> <p>The activity is not expected to have any significant negative impacts on any heritage resources (archaeological and/or palaeontological). It is expected to contribute in a positive way to this cultural landscape.</p> <p>The proposed development is not expected to have any adverse effects on people's health and well-being. It is also not expected to produce any noise or odours during the operational phase.</p> <p>The proposed development is not expected to have any significant negative impact on the visual character of the area.</p> <p>The proposed activity will create jobs during the construction and operational phases. The proposed development is needed by Rustenberg Wines to expand production. The site has very high potential soils for the cultivation of vines and is better suited to the cultivar that is intended to be planted.</p> <p>Considering all the information, it is not envisaged that this proposed development will have a significant negative impact on the environment.</p> <p><u>It is therefore recommended that this application be authorised with the necessary conditions of approval as described throughout this BAR.</u></p>		

(c) Provide a description of any aspects that were conditional to the findings of the assessment by the EAP and Specialists which are to be included as conditions of authorisation.	
Conservation of the remainder of the site (natural vegetation) in perpetuity, and removal of alien invasive vegetation from the development site.	

(d) If you are of the opinion that the activity should be authorised, please provide any conditions, including mitigation measures that should in your view be considered for inclusion in an environmental authorisation.	
Compliance with the EMP and appointment of an ECO during the construction phase.	

(e) Please indicate the recommended periods in terms of the following periods that should be specified in the environmental authorisation:	
i. the period within which commencement must occur;	5 years
ii. the period for which the environmental authorisation is granted and the date on which the development proposal will have been concluded, where the environmental authorisation does not include operational aspects;	1 year
iii. the period for which the portion of the environmental authorisation that deals with non-operational aspects is granted; and	N/A
iv. the period for which the portion of the environmental authorisation that deals with operational aspects is granted.	Indefinite

## SECTION I: APPENDICES

The following appendices must be attached to this report:

APPENDIX		Confirm that Appendix is attached
Appendix A:	Locality map	X
Appendix B:	Site development plan(s)	X
	A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;	
Appendix C:	Photographs	X
Appendix D:	Biodiversity overlay map	X
Appendix E:	Permit(s) / license(s) from any other Organ of State, including service letters from the municipality.	X
	Appendix E1: Copy of comment from HWC.	X
Appendix F:	Public participation information: including a copy of the register of I&APs, the comments and responses report, proof of notices, advertisements and any other public participation information as is required in Section C above.	X
Appendix G:	Specialist Report(s)	X
Appendix H :	EMPr	X
Appendix I:	Additional information related to listed waste management activities (if applicable)	
Appendix J:	If applicable, description of the impact assessment process followed to reach the proposed preferred alternative within the site.	X
Appendix K:	Any Other (if applicable).	

## SECTION J: DECLARATIONS

### THE APPLICANT

**Note:** Duplicate this section where there is more than one applicant.

I ....., in my personal capacity or duly authorised thereto, hereby declare/affirm all the information submitted as part of this Report is true and correct, and that I –

- am aware of and understand the content of this report;
- am fully aware of my responsibilities in terms of the NEMA, the EIA Regulations in terms of the NEMA (Government Notice No. R. 982, refers) (as amended) and any relevant specific environmental management Act and that failure to fulfil these requirements may constitute an offence in terms of relevant environmental legislation;
- have provided the EAP and Specialist, Review EAP (if applicable), and Review Specialist (if applicable), and the Competent Authority with access to all information at my disposal that is relevant to the application;
- will be responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority;
- will be responsible for the costs incurred in complying with the conditions that may be attached to any decision(s) issued by the Competent Authority;

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

Signature of the Applicant:

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Name of Organisation:

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Date:

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## THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

I ....., as the appointed EAP hereby declare/affirm:

- the correctness of the information provided as part of this Report;
- that all the comments and inputs from stakeholders and I&APs have been included in this Report;
- that all the inputs and recommendations from the specialist reports, if specialist reports were produced, have been included in this Report;
- any information provided by me to I&APs and any responses by me to the comments or inputs made by I&APs;
- that I have maintained my independence throughout this EIA process, or if not independent, that the review EAP has reviewed my work (Note: a declaration by the review EAP must be submitted);
- that I have throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have throughout this EIA process disclosed to the applicant, the specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application;
- have ensured that information containing all relevant facts in respect of the application was distributed or was made available to I&APs and that participation by I&APs was facilitated in such a manner that all I&APs were provided with a reasonable opportunity to participate and to provide comments;
- have ensured that the comments of all I&APs were considered, recorded and submitted to the Department in respect of the application;
- have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, if specialist inputs and recommendations were produced;
- have kept a register of all I&APs that participated during the PPP; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the EAP: \_\_\_\_\_

Name of Company: \_\_\_\_\_

Date: \_\_\_\_\_

## THE REVIEW ENVIRONMENTAL ASSESSMENT PRACTITIONER

I ....., as the appointed Review EAP hereby declare/affirm:

- that I have reviewed all the work produced by the EAP;
- the correctness of the information provided as part of this Report;
- that I have, throughout this EIA process met all of the general requirements of EAPs as set out in Regulation 13;
- I have, throughout this EIA process disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the  
Review EAP:

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Name of Company:

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Date:

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## THE SPECIALIST

**Note:** Duplicate this section where there is more than one specialist.

I ....., as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I :

- in terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
- in terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of the Specialist:

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Name of Company:

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Date:

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## THE REVIEW SPECIALIST

I ....., as the appointed Review Specialist hereby declare/affirm:

- that I have reviewed all the work produced by the Specialist(s);
- the correctness of the specialist information provided as part of this Report;
- that I have, throughout this EIA process met all of the general requirements of specialists as set out in Regulation 13;
- I have, throughout this EIA process disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations, 2014 (as amended).

Signature of Review Specialist:

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Name of Company:

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Date:

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