LORNAY
ENVIRONMENTAL CONSULTING

Final Basic Assessment Report

Proposed Agricultural Expansion through the Establishment of Additional Cultivation Blocks on Erf 1995, McGregor, Robertson RD

May 2025

Consultant:

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Western Cape Government

Department of Environmental Affairs and Development Planning

BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

APRIL 2024

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APRIL 2024

(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

GENERAL PROJECT DESCRIPTION

(This must Include an overview of the project including the Farm name/Portion/Erf number)

The proposed project entails the cultivation of agricultural land for the establishment of new additional cultivation blocks on Hout Baai Farm, situated on Erf 1995, just outside the town of McGregor within the Langeberg Municipality. This project seeks to expand existing operations on the farm through the establishment of two additional cultivation blocks, further strengthening the farm's role in the local wine and olive industry.

Hout Baai Farm is situated within a dynamic agricultural landscape on the immediate outskirts of McGregor, an area characterized by a mixture of vineyards, orchards, and natural habitats that adds to economic value of the Langeberg region. This particular location is ideal for wine and olive farming due to its temperate climate and nutrient-rich alluvial soils, both of which are essential for producing exceptional quality product. The area is renowned for supporting a vibrant wine industry that benefits from these unique agricultural conditions.

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. *Submission of documentation, reports and other correspondence:*

   The Department has adopted a digital format for corresponding with proponents/applicants or the general public. If there is a conflict between this approach and any provision in the legislation, then the provisions in the legislation prevail. If there is any uncertainty about the requirements or arrangements, the relevant Competent Authority must be consulted.

   The Directorate: Development Management has created generic e-mail addresses for the respective Regions, to centralise their administration. Please make use of the relevant general administration e-mail address below when submitting documents:

   DEADPEIAAdmin@westerncape.gov.za
   Directorate: Development Management (Region 1):
   City of Cape Town; West Coast District Municipal area;
   Cape Winelands District Municipal area and Overberg District Municipal area.

   DEADPEIAAdmin.George@westerncape.gov.za
   Directorate: Development Management (Region 3):
   Garden Route District Municipal area and Central Karoo District Municipal area

   General queries must be submitted via the general administration e-mail for EIA related queries. Where a case-officer of DEA&DP has been assigned, correspondence may be directed to such official and copied to the relevant general administration e-mail for record purposes.

   All correspondence, comments, requests and decisions in terms of applications, will be issued to either the applicant/requester in a digital format via email, with digital signatures, and copied to the Environmental Assessment Practitioner ("EAP") (where applicable).

4. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

5. All applicable sections of this BAR must be completed.

6. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

7. This BAR is current as of **April 2024**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za to check for the latest version of this BAR.

8. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

9. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR 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.

10. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

11. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

12. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

13. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

14. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

15. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('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: 021-483-2728/2705 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 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS	
CAPE TOWN OFFICE: **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)** (City of Cape Town, West Coast District, Cape Winelands District & Overberg District)	**GEORGE REGIONAL OFFICE:** **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 3)** (Central Karoo District & Garden Route District)
The completed Form must be sent via electronic mail to: DEADPEIAAdmin@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 1) at: E-mail: DEADPEIAAdmin@westerncape.gov.za Tel: (021) 483-5829 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000	The completed Form must be sent via electronic mail to: DEADPEIAAdmin.George@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 3) at: E-mail: DEADPEIAAdmin.George@westerncape.gov.za Tel: (044) 814-2006 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or 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: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale. For 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. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	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: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • 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 proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.

	• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow 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.
Site photographs	Colour photographs of the site that shows the overall condition 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 to this BAR as **Appendix C**. 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.
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs
DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	✓
	Appendix A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	N/A
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	N/A
Appendix B:	**Appendix B1:**	**Site development plan(s)**	✓
	Appendix B2	**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**		✓
Appendix D:	**Biodiversity overlay map**		✓
Appendix E:	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E1:	**Final comment/ROD from HWC**	✓
	Appendix :	**Copy of comment from Cape Nature**	✓
	Appendix :	**Final Comment from the BOCMA**	✓
	Appendix :	**Comment from the DEA: Oceans and Coast**	N/A
	Appendix :	**Comment from the DAFF**	N/A
	Appendix:	**Comment from WCG: Transport and Public Works**	N/A
	Appendix :	**Comment from WCG: DoA**	✓
	Appendix :	**Comment from WCG: DHS**	N/A

	Appendix :	**Comment from WCG: DoH**	N/A
	Appendix E:	**Comment from DEA&DP: Pollution Management**	N/A
	Appendix E11:	**Comment from DEA&DP: Waste Management**	N/A
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	N/A
	Appendix E13:	**Comment from DEA&DP: Air Quality**	N/A
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	N/A
	Appendix:	**Comment from the local authority**	✓
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	N/A
	Appendix E17:	**Comment from the District Municipality**	Pending
	Appendix E18:	**Copy of an exemption notice**	N/A
	Appendix E19	**Pre-approval for the reclamation of land**	N/A
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	-
	Appendix E21:	**Proof of land use rights**	-
	Appendix E22:	**Proof of public participation agreement for linear activities**	N/A
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.**		✓
Appendix G:	**Specialist Report(s)** **APP G Botanical Assessment**		✓
Appendix H:	**EMPr**		✓
Appendix I:	**Screening tool report**		✓
Appendix J:	**GA Water Use**		✓
Appendix K:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline**		-
Appendix…..	**Any other attachments must be included as subsequent appendices**		-

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE: REGION 1		GEORGE OFFICE: REGION 3
	(City of Cape Town, West Coast District	(Cape Winelands District & Overberg District)	(Central Karoo District & Garden Route District)

Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	Imperative Link Trade 22 cc	
Name of contact person for Applicant/Proponent (if other):	Alwyn Llewellyn Krull	
Company/ Trading name/State Department/Organ of State:	Imperative Link Trade 22 cc	
Company Registration Number:	2011/085952/23	
Postal address:	PostNet Suite 27, PO Box 662,	
	Gonubie, East London	Postal code: 5256
Telephone:	( )	Cell: 083 650 4845
E-mail:	alwyn@suneggs.co.za	Fax: ( )
Company of EAP:	Lornay Environmental Consulting	
EAP name:	Michelle Naylor	
Postal address:	Unit 5/1F Hemel and Aarde Wine Village	
	Hermanus	Postal code: 7200
Telephone:	( )	Cell: 083 245 6556
E-mail:	michelle@lornay.co.za	Fax: ( )
Qualifications:	Master of Science (Rhodes University)	
EAP registration no:	2019/698	

Duplicate this section where there is more than one landowner Name of landowner:	Alwyn Krull	
Name of contact person for landowner (if other):	Alwyn Krull	
Postal address:	PostNet Suite 27, PO Box 662,	
	Gonubie, East London	Postal code: 5256
Telephone:	( )	Cell: 083 650 4845
E-mail:	alwyn@suneggs.co.za	Fax: ( )
Name of Person in control of the land:	Imperative Link Trade cc	
Name of contact person for person in control of the land:	Alwyn Krull	
Postal address:	As above	
	-	Postal code: -
Telephone:	( )	Cell: -
E-mail:	-	Fax: ( )

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	Langeberg Municipality	
Contact person:	Tracy Brunings	
Postal address:	Private Bag X2,	
	Ashton	Postal code: 6715
Telephone	023 614 8000	Cell:
E-mail:	tbrunings@langeberg.gov.za	Fax: ( )

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INCLUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New		Expansion	**x**
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.				

The broader farm is actively farmed and therefore is a brownfield site, however the specific area proposed for development has not been farmed, although it has been impacted to a degree by adjacent active agriculture as well as brush cutting and maintenance on the site itself. Therefore, the expansion area is classified as greenfield. This classification is based on the predominance of indigenous vegetation across the area earmarked for development, indicating that the land remains in a natural and undeveloped state. Although certain portions of the site show signs of past disturbance resulting from historical land use activities, however, there is no evidence of prior formal development or infrastructure.

~~3.~~	~~**For Linear activities or developments**~~	
~~3.1.~~	~~Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:~~	
~~3.2.~~	~~Development footprint of the proposed development for all alternatives.~~	~~m²~~
~~3.3.~~	~~Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.~~	
~~3.4.~~	~~Indicate how access to the proposed routes will be obtained for all alternatives.~~	
~~3.5.~~	~~SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives~~	
~~3.6.~~	~~**Starting point co-ordinates for all alternatives**~~	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~
	~~**Middle-point co-ordinates for all alternatives**~~	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~
	~~**End point co-ordinates for all alternatives**~~	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~
~~**Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.**~~		
4.	**Other developments**	
4.1.	Property size(s) of all proposed site(s):	394 676.8 m² (39.5 ha)
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):	126 800 m²

		(12.68 ha)
4.3.	Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:	**Alternative three – New preferred** **Block 1**: 15 000 m^2 (1.5 ha) **Block 2**: 5000 m^2 (0.5 ha) **Total footprint required** = 20 000 m^2 (2 ha)
4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).	

The applicant already has an established vineyard on the farm and wishes to expand its production. The farm operates under an organically driven philosophy and the wines produced are branded under the popular Solara Organic Wines label. The following approach to farming is already implemented on site in line with their organic branding:

- Restore the land by eliminating the application of artificial fertilisers, insecticides, herbicides and all unnatural substances, and ensure all inputs are compatible with organic practice.
- Encourage natural plant growth and the restoration of native fauna, to balance the environment, from the sky down to the smallest microbes in the soil.
- Use weeds, hand and machine cut, for compost, mulch and feeding worms for vermicast fertilisation and compost tea.
- Protect the indigenous flora in natural areas to create biodiversity.
- Establish tree barriers to protect the land from 'neighbourly' contamination.
- Ensure corridors for free migration of fauna.
- Halt erosion with natural barriers
- Install predator bird perches
- Cultivate worm farms

The farm is certified organic wine by the Lacon Institute in Germany.

The proposed development involves the establishment of two additional cultivation blocks on the existing agricultural zoned land of Erf 1995, McGregor. This involves the clearance and cultivation of an area approximately 2 ha of indigenous vegetation for the establishment of these two additional cultivation blocks (olive grove and wine grapes) as well as the placement of irrigation pipelines, as illustrated in **Figure 1a** and **Figure 1b** below.

→ **Block 1:** Olive grove - A clearance of approximately 1.5 ha.
→ **Block 2:** Wine grapes - Clearance of 0.5 ha.

Irrigation lines

Olive grove

- Dripper pipelines will be installed and situated above ground. The total length of the dripper pipelines is ±3200m (Rows vary between 178m and 62m).
- Netafim PVC and HDPE piping with a 20mm in diameter.

Wine grapes

- Dripper pipelines will be used for irrigation and will be situated above ground. The total length of the dripper pipelines is ±2100m (rows vary between 68m to 10m).
- Netafim PVC and HDPE piping with a 16mm in diameter.

No shade netting will be installed for either block.

Electricity:

→ The proposed expansion of the farming activities does not require electricity.

Water:

→ The farm's existing water rights for groundwater abstraction 10863 m³ (Appendix J) are sufficient, and no additional water use license application (WULA) is required.

Sewage:

No expansion or increase in sewage requirements necessary.

Figure 1a: Preferred site layout plan – Alternative 3

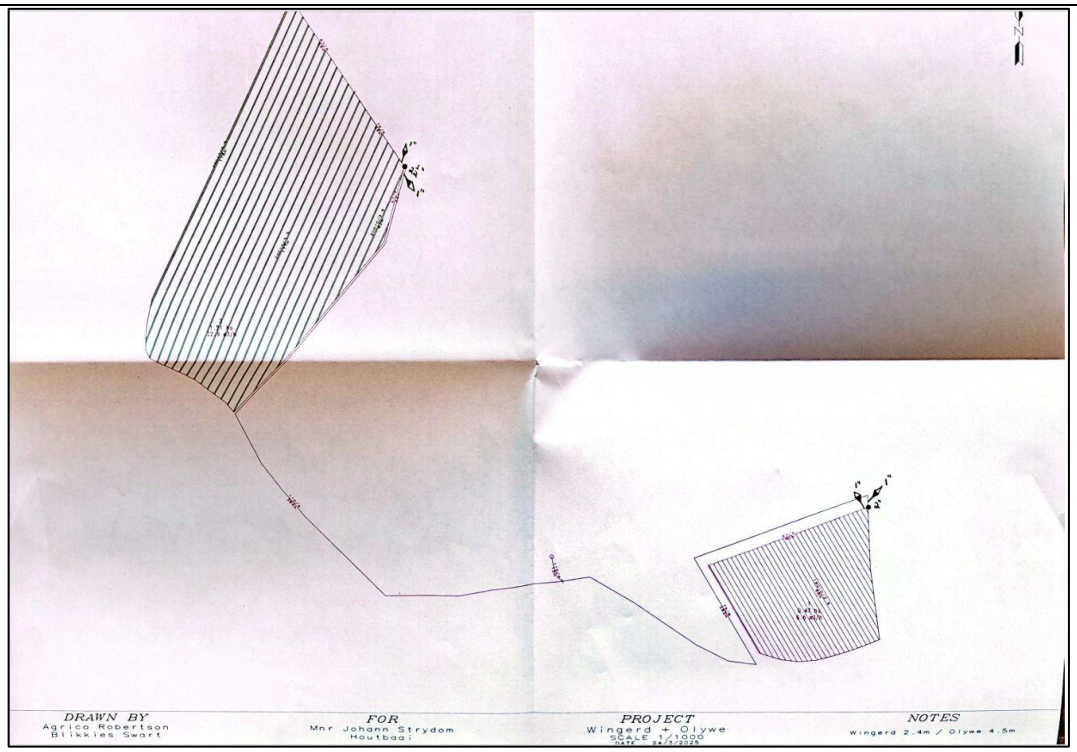


Figure 1b: View of the proposed cultivation area along with the proposed irrigation pipelines indicated in the diagram.

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.																						
The site is accessible via Voortrekker Street.																							
4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	6	5	0	0	0	1	0	0	0	0	1	9	9	5	0	0	0	0	0	

4.7.	Coordinates of the proposed site(s) for all alternatives: **Block 1**			
	Latitude (S)	33°	57‘	29.98“
	Longitude (E)	19°	48‘	54.72“
	Block 2			
	Latitude (S)	33°	57‘	33.17“
	Longitude (E)	19°	49‘	4.44“

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	YES	NO x

2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	YES	NO x
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES	NO x
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	YES	NO x
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	YES	NO x
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	NO x
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	YES	NO x
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	NO x
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	YES	NO x

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.
N/A

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.
<u>Western Cape Provincial Spatial Development Framework (2014</u>) This framework advocates for sustainable land use practices that balance the needs of development with the conservation of agricultural and natural resources. The proposed activity aligns with the Western Cape Provincial framework's principles by prioritizing the preservation and utilization of arable agricultural land for cultivation. By carefully selecting the two blocks for cultivation on areas suitable for vineyard farming the proposal adheres to the framework's directive to optimize agricultural potential while preventing land degradation and promoting long-term sustainability. Furthermore, the activity supports rural economic development and food security objectives outlined in the framework, contributing to the region's overall agricultural viability. **<u>Langeberg Municipality Draft Spatial Development Framework (2023-2024)</u>** The Draft SDF emphasizes the impotence of agricultural development as a fundamental driver of local economic growth, while it is also advocating for environmental stewardship. The proposed cultivation activity directly responds to this policy by leveraging the identified arable land, based on a detailed soil analysis conducted on the farm. This ensures that the most suitable land is utilized for two additional cultivation blocks, thereby optimizing productivity and preventing unnecessary encroachment on non-arable or environmentally sensitive areas.

Additionally, the activity is consistent with the spatial planning zones designated for agriculture, reinforcing the framework's strategic objectives of promoting agricultural diversification and sustainable land use.

By adhering to these policies, the proposed cultivation activity demonstrates a commitment to the sustainable development and optimization of agricultural resources, prioritizing high-value agricultural land while supporting local economic development. This alignment underscores the Department of Agriculture's broader goals of promoting agricultural productivity and sustainability in the region.

Langeberg Municipality Integrated Development Plan (LMIDP) 2023

The Langeberg Municipality Integrated Development Plan (IDP) 2023 underscores the critical importance of preserving soils with greater depths, particularly in the region between McGregor and Bonnievale. These deep soils are considered highly valuable for agricultural land use, supporting sustainable farming practices and ensuring food security. The conversion of such land to non-agricultural purposes presents a significant threat to the region's agricultural productivity and long-term economic sustainability.

The proposed development aligns with the objectives of the LMIDP by utilizing identified preferred development areas on the property for the establishment of two additional vineyard blocks. These areas were selected based on a comprehensive on-site soil analysis study, which indicated these areas suitable for vineyard cultivation. This approach not only supports sustainable agricultural practices but also ensures optimal use of the region's valuable soil resources.

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

1. **Guideline on Alternatives (DEA&DP, March 2013)**

   This guideline emphasizes the need to assess feasible and reasonable alternatives to avoid or minimize environmental impacts. In line with this, the soil analysis study was a critical determinant in guiding the selection of the proposed development areas. Only arable land with high agricultural potential was prioritized, ensuring that the placement of the cultivation blocks aligns with both agronomic suitability and environmental considerations. This approach also helped avoid areas with High botanical sensitivity and significant conservation value, thereby minimizing ecological impacts.

2. **Guideline on Environmental Management Plans (DEA&DP, June 2005)**

   The development proposal integrates key mitigation and management measures into the Environmental Management Programme (EMPr), as recommended by this guideline. These measures address potential risks during both the construction and operational phases, including habitat disturbance, vegetation clearance, and soil erosion. The inclusion of a detailed Search and Rescue plan, post-development rehabilitation, and the demarcation of no-go areas ensures that the activity is conducted in an environmentally responsible and sustainable manner, with continuous monitoring and adaptive management embedded in project implementation.

3. **Guidelines on Need and Desirability (DEA&DP, 2017)**

   This guideline provides a framework for determining whether the proposed activity is necessary and appropriate within its specific context. The cultivation proposal is consistent with the Langeberg Municipality's spatial planning frameworks and agricultural development strategies. It enhances the productive use of land that has been identified for its agricultural suitability, thereby supporting local economic development, job

creation, and food security. The project also aligns with broader provincial and national objectives of sustainable land use and economic transformation in rural areas.

4. Western Cape Biodiversity Spatial Plan (WCBSP) Handbook and Guideline (CapeNature & DEA&DP, 2023)

The study area is mapped as an Ecological Support Area (ESA) in the WCBSP. This guideline promotes the conservation and effective management of ESAs to maintain ecological processes and landscape connectivity. In response to this, the development layout has been designed to avoid High sensitivity areas and minimize habitat fragmentation. Alternative 3, which is now the preferred alternative, fully avoids any High sensitivity zones and all known populations of Species of Conservation Concern (SoCCs), thus reflecting the project's responsiveness to biodiversity conservation objectives. Furthermore, the recommendation for a conservation offset (via a donation to the Vrolikheid Nature Reserve) is informed by this guideline to support regional ecological resilience.

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form

According to the Screening Tool the following themes have been identified:

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme			X	
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme	X			
Civil Aviation Theme				X
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme			X	
Terrestrial Biodiversity Theme				X

Agricultural Theme – Medium Sensitivity – The proposed activity is in line with agricultural zoning and is located within existing agricultural land. The soil analysis confirmed that the proposed site, as indicated by the preferred alternative is optimal for cultivation area for olive grove and wine grapes due to suitable soil types, mineral content, and drainage properties. The proposed expansion is consistent with the farm's existing operations. No further assessment is required under this theme.

Animal Species Theme – Medium Sensitivity – The proposal is for the expansion of existing agricultural operations on an approximately 40 ha property. The site already experiences a range of disturbances through day-to-day agricultural operations and residential use. The site is located on the main road exiting McGregor and directly alongside the town of McGregor. The proposal is for the development of two additional cultivation blocks with no additional hard built structures. These blocks will be separated by natural vegetation and large areas of natural habitat will remain after the development. The farm is also a certified organic farm and will therefore not use any pesticides or other practices which may negatively impact fauna. A site scan for Black Harrier nests must be conducted before cultivation commences on site. Should any nests be found, the proposed cultivation must be postponed to a later date. Black Harriers, build their nests on the ground, in tall vegetation near wetlands or in reedbeds, using dried vegetation like stems, grass, reeds, and weeds, such habitat is not typical of this site

Breeding Season: In South-western South Africa, egg-laying typically takes place between June and November, with peaks in July and September. The female lays between 3-5 eggs, which are bluish-white. The female handles the incubation duties for about a month, while the male provides food. After the nestlings hatch, the male continues to bring food to the nest, while the female feeds the young. The young fledge after about five to six weeks. Given the

reasons outlined above we motivate that an Animal Species Assessment is not required for the proposal. It is recommended that a site walk is conducted ahead of land preparation to move any slow moving or sedentary animals as well as scan for the black harrier nests.

Aquatic Biodiversity Theme – Low sensitivity – The proposed development area does not intersect with wetlands, rivers, or watercourses. Given the absence of aquatic biodiversity features within the development footprint, no further assessment is required under this theme.

Archaeological and Cultural Heritage Theme – Very high sensitivity – A Notification of Intent to Develop (NID) has been submitted to Heritage Western Cape (HWC). Written confirmation from HWC indicated that no heritage resources would be impacted by the proposed vineyard establishment. No further heritage impact assessment is required.

Civil Aviation Theme – Low sensitivity – the proposed expansion is in line with the existing agricultural activities in the area. Therefore, no additional impacts are expected to this theme. No further assessment required.

Defence Theme – Low sensitivity – the proposed expansion is in line with the existing agricultural activities in the area. Therefore, no additional impacts are expected to this theme. No further assessment required.

Paleontology –Very high – A Notification of Intent to Develop (NID) has been submitted to Heritage Western Cape (HWC). Written confirmation from HWC indicated that no paleontological resources would be impacted by the proposed vineyard establishment. Consequently, no further assessment is required.

Plant Species Theme – Medium – A Specialist has been appointed. The Terrestrial Biodiversity Assessment includes a detailed evaluation of plant species assessment on site. Two plant species of conservation concern were identified on site.

Terrestrial Biodiversity Theme – Low Sensitivity – A Specialist has been appointed. See above.

Specialist assessments identified by the Screening Tool:

Landscape/ Visual Impact Assessment - Heritage Western Cape confirmed that a Heritage Impact Assessment is not required, as the vineyard establishment is not expected to significantly affect the landscape or visual characteristics of the area. No further assessment is therefore required.

Archaeological and Cultural Heritage Impact Assessment – The NID was submitted to HWC and it was determined that no further assessment is required.

Palaeontological Impact Assessment – The proposed activity involves minor surface-level disturbances, which are unlikely to impact significant palaeontological resources. Partial fossil impressions, if encountered, are unlikely to hold substantial value.

Terrestrial Biodiversity Impact Assessment – A Specialist has been appointed. This assessment also included plant species theme and terrestrial biodiversity theme.

Aquatic Biodiversity Impact Assessment – There are no wetland or watercourses identified on the proposed site.

Socio-economic Assessment – The proposed expansion aligns with local agricultural development in the area.

Plant Species Assessment – The assessment is integrated into the terrestrial biodiversity assessment to comprehensively evaluate potential impacts and propose mitigation measures if needed.

Animal Species Assessment – The EAP conducted a site visit. The site is located on Voortrekker Road and minor road on the edge of the built-up urban area of McGregor. During the site visit no notable faunal species were seen.

In addition, the site is located directly alongside the town of McGregor and within a well-established agricultural landscape. There are no watercourses or wetlands on site and no nests or burrows were recorded. In addition, the development proposal is for two specific blocks with the remaining area undisturbed and natural, therefore providing adequate remaining habitat and / or movement corridors for species. It is recommended that a site walk be undertaken prior to soil disturbance to relocate any slow-moving species such as tortoises.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
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.	For the proposed expansion, a total footprint of approximately 3.72 hectares of natural vegetation will be cleared. The vegetation type is classified as Least Threatened.
Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
Note: • The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted. • Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.		

~~List the applicable waste management listed activities in terms of the NEM:WA~~

~~Activity No(s):~~	~~Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~

~~List the applicable listed activities in terms of the NEM:AQA~~

~~Activity No(s):~~	~~Provide the relevant **Listed Activity(ies)**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The preferred property alternative for the proposed additional cultivation blocks is located on Erf 1995, McGregor, an existing viticulture farm situated to the south of the town of McGregor. The northern section of the property, which is currently undeveloped, has been identified as a suitable area for the establishment of the proposed vineyard blocks. This section offers ideal conditions for expansion, as the southern part of the farm is already in agricultural production, specifically dedicated to vineyards.

The proposed expansion involves the establishment of two new cultivation blocks mainly for an olive grove and wine grapes as follows

- **Block 1:** Olive grove - A clearance of approximately 1.5 ha.
- **Block 2:** Wine grapes - Clearance of 0.50 ha.

These blocks will be located on the northern portion of the property (**Figure 3a**), facilitating the expansion of the farming area. The decision to focus on these specific areas for expansion was primarily informed by the results of the soil analysis conducted on-site. The soil testing revealed that the conditions in these areas are optimal for the proposed expansion, ensuring the production of high-quality grapes and olives. Key factors such as suitable soil types, mineral content, and drainage properties, which are essential for healthy growth and the production of premium grapes and olives, were all identified as being ideal in these areas (**Figure 3b**). Topography of the site is also important and these flatter areas were identified between steeper, rocky sections on the farm.

Expanding the vineyards in this area will enable the farm to maintain consistent agricultural productivity by leveraging the favourable environmental conditions, while preserving the integrity of the existing operations. Moreover, the proposed expansion will contribute to the long-term sustainability and economic growth of the farm, supporting local agricultural development and enhancing the broader viticulture industry. As an organic farm registered with Ecocert South Africa, its operations takes conservation seriously.

Irrigation lines

Olive grove

- Dripper pipelines will be installed and situated above ground. The total length of the dripper pipelines is ±3200m (Rows vary between 178m and 62m).
- Type of Dripper line that will be used is Netafim (PVC and HDPE) with a 20mm in diameter

Wine grapes

- Dripper pipelines will be used for irrigation and will be situated above ground. The total length of the dripper pipelines is ±2100 m (rows vary between 68m to 10m).
- Type of dripper line that will be used is Netafim (PVC and HDPE) with a 16mm in diameter.

No shade netting will be installed for either block.

Electricity:

→ The proposed expansion of the farming activities does not require electricity.

Water:

→ The farm's existing water rights for groundwater abstraction 10863 m³ (**Appendix J**) are sufficient, and no additional water use license application (WULA) is required.

Sewage:

→ No expansion or increase in sewage requirements necessary.

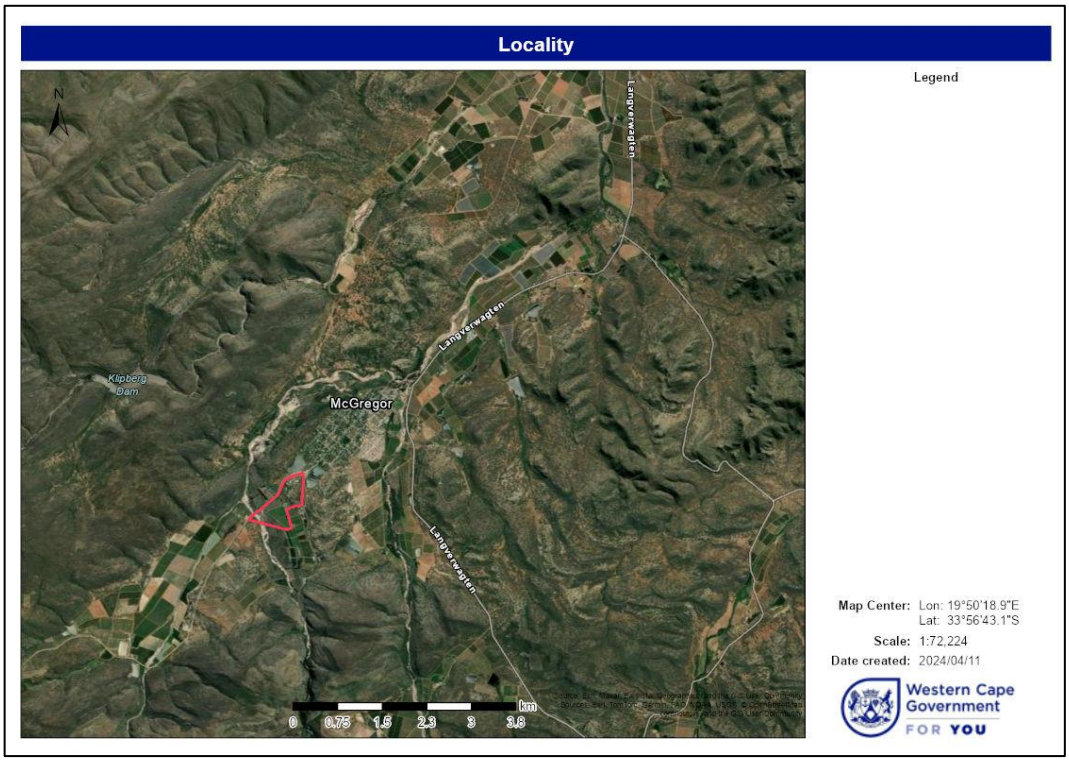


Figure 2: The location of the site.

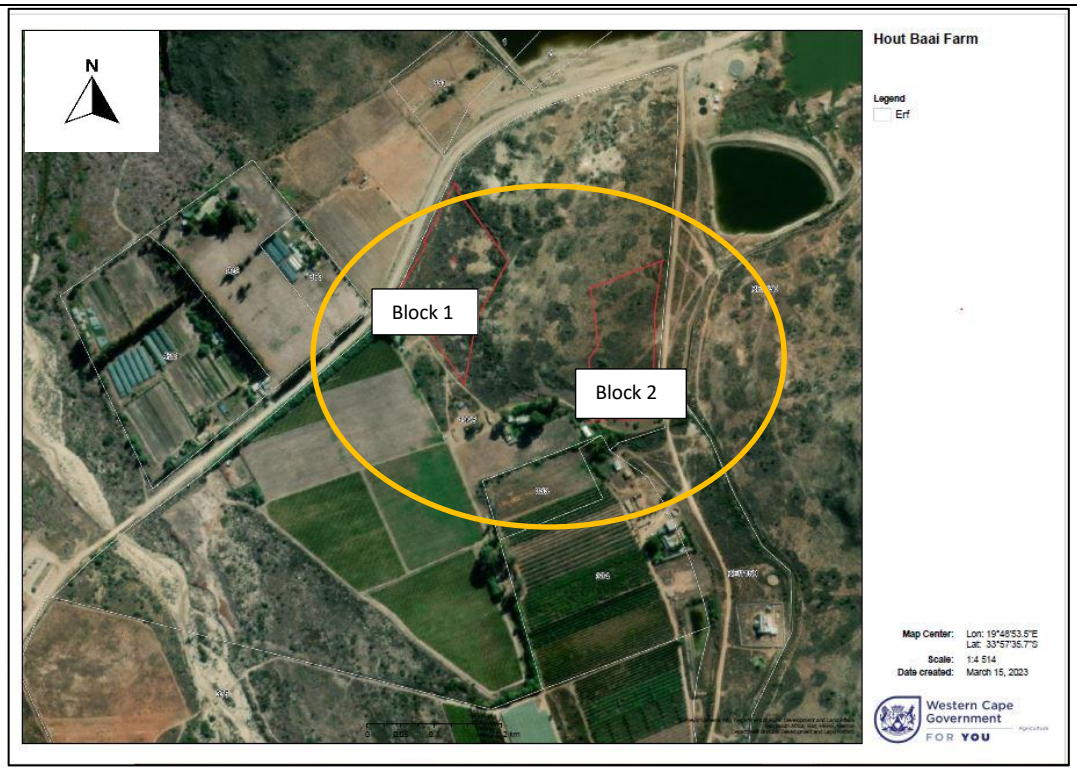
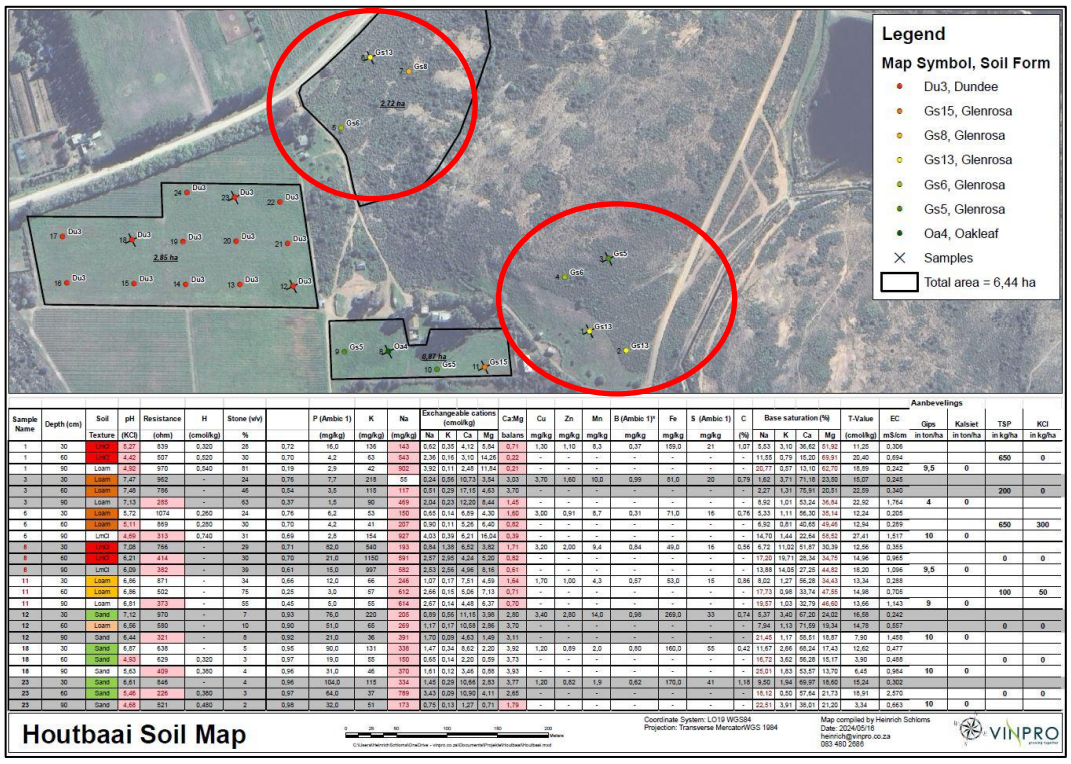


Figure 3a: The site location and a view of the property highlighting the northern portion, marked in orange, which is designated for the proposed cultivation.



Sample Name	Depth (cm)	Soil Texture	pH (KCl)	Resistance (ohm)	H (cmol/kg)	Stone (vv) %		P (Ambic 1) (mg/kg)	K (mg/kg)	Na (mg/kg)	Exchangeable cations (cmol/kg) Na	K	Ca	Mg	Ca:Mg balans	Cu mg/kg	Zn mg/kg	Mn mg/kg	B (Ambic 1)* mg/kg	Fe mg/kg	S (Ambic 1) mg/kg	C (%)	Base saturation (%) Na	K	Ca	Mg	T-Value (cmol/kg)	EC mS/cm	Aanbevelings Gips in ton/ha	Kalsiet in ton/ha	TSP in kg/ha	KCl in kg/ha
1	30	LmSd	5,27	839	0,320	28	0,72	16,0	136	143	0,62	0,35	4,12	5,84	0,71	1,30	1,10	8,3	0,37	169,0	21	1,07	5,53	3,10	36,62	51,92	11,25	0,306				
1	60	LmSd	4,42	507	0,520	30	0,70	4,2	63	543	2,36	0,16	3,10	14,26	0,22	-	-	-	-	-	-	-	11,55	0,79	16,20	69,91	20,40	0,694			650	0
1	90	Loam	4,92	970	0,640	51	0,19	2,9	42	902	3,92	0,11	2,48	11,54	0,21	-	-	-	-	-	-	-	20,77	0,57	13,10	62,70	18,89	0,242	9,5	0		
3	30	Loam	7,47	963	-	24	0,76	7,7	219	55	0,24	0,56	15,73	3,54	3,03	3,70	1,60	10,0	0,99	51,0	20	0,79	1,63	3,71	71,16	23,50	15,07	0,245				
3	60	Loam	7,48	786	-	46	0,54	3,5	115	117	0,51	0,29	17,15	4,63	3,70	-	-	-	-	-	-	-	2,27	1,31	75,91	20,51	22,59	0,340			200	0
3	90	Loam	7,13	285	-	63	0,37	1,5	90	469	2,04	0,23	12,20	8,44	1,45	-	-	-	-	-	-	-	8,92	1,01	53,24	36,84	22,92	1,764	4	0		
6	30	Loam	5,72	1074	0,260	24	0,76	6,2	53	150	0,65	0,14	6,69	4,30	1,60	3,00	0,91	8,7	0,31	71,0	16	0,76	5,33	1,11	66,30	35,14	12,24	0,205				
6	60	LmSd	5,11	569	0,260	30	0,70	4,2	41	207	0,90	0,11	5,26	6,40	0,82	-	-	-	-	-	-	-	6,92	0,81	40,65	49,48	12,94	0,289			650	300
6	90	LmCl	4,69	313	0,740	31	0,69	2,9	154	927	4,03	0,39	6,21	16,04	0,39	-	-	-	-	-	-	-	14,76	1,44	22,64	59,52	27,41	1,517	10	0		
8	30	Clay	7,08	766	-	29	0,71	82,0	540	193	2,84	1,38	8,52	3,82	1,71	3,20	2,00	9,4	0,84	49,0	16	0,56	6,72	11,02	51,87	30,39	12,56	0,385				
8	60	LmCl	6,21	414	-	30	0,70	21,0	1150	591	2,57	2,95	4,24	5,20	0,82	-	-	-	-	-	-	-	17,20	19,71	28,34	34,75	14,96	0,965			0	0
8	90	LmCl	6,09	382	-	39	0,61	15,0	997	582	2,53	2,56	4,96	8,16	0,61	-	-	-	-	-	-	-	13,88	14,05	27,25	44,82	18,20	1,096	9,5	0		
11	30	Loam	6,86	871	-	34	0,66	12,0	66	246	1,07	0,17	7,51	4,69	1,64	1,70	1,00	4,3	0,57	53,0	16	0,86	9,02	1,27	66,28	34,43	13,34	0,288				
11	60	Loam	6,96	502	-	75	0,25	3,0	57	612	2,66	0,16	6,06	7,13	0,71	-	-	-	-	-	-	-	17,73	0,98	33,74	47,55	14,98	0,705			100	50
11	90	Loam	6,81	373	-	55	0,45	5,0	55	614	2,67	0,14	4,48	6,37	0,70	-	-	-	-	-	-	-	19,87	1,03	32,79	46,60	13,66	1,143	9	0		
12	30	Sand	7,12	970	-	7	0,93	76,0	220	205	0,89	0,56	11,15	3,98	2,80	3,40	2,80	14,0	0,98	269,0	33	0,74	5,37	3,40	67,20	24,02	16,88	0,242				
12	60	Loam	6,56	580	-	10	0,90	51,0	65	269	1,17	0,17	10,59	2,86	3,70	-	-	-	-	-	-	-	7,94	1,13	71,59	19,34	14,79	0,557			0	0
12	90	Sand	6,44	321	-	8	0,92	21,0	36	391	1,70	0,09	4,63	1,49	3,11	-	-	-	-	-	-	-	21,45	1,17	55,51	16,87	7,90	1,456	10	0		
18	30	Sand	6,87	638	-	5	0,95	90,0	131	338	1,47	0,34	8,62	2,20	3,92	1,20	0,89	2,0	0,80	160,0	55	0,42	11,67	2,66	66,24	17,43	12,62	0,477				
18	60	Sand	4,93	629	0,320	3	0,97	19,0	55	155	0,65	0,14	2,20	0,59	3,73	-	-	-	-	-	-	-	16,72	3,62	56,28	15,17	3,90	0,485			0	0
18	90	Sand	5,63	409	0,360	4	0,96	31,0	46	370	1,61	0,12	3,46	0,88	3,93	-	-	-	-	-	-	-	26,01	1,83	53,57	13,70	6,45	0,964	10	0		
23	30	Sand	6,61	845	-	4	0,96	104,0	115	334	1,45	0,29	10,66	2,83	3,77	1,20	0,82	1,9	0,62	170,0	41	1,16	9,50	1,94	69,97	18,60	15,24	0,302				
23	60	Sand	5,46	226	0,360	3	0,97	64,0	37	789	3,43	0,09	10,90	4,11	2,65	-	-	-	-	-	-	-	16,12	0,50	57,64	21,73	16,91	2,570			0	0
23	90	Sand	4,66	521	0,460	2	0,96	32,0	51	173	0,75	0,13	1,27	0,71	1,79	-	-	-	-	-	-	-	22,51	3,91	36,01	21,20	3,34	0,663	10	0		

Figure 3b: Soil analysis results.

2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

The proposed development is in line with the existing land use rights of the property, as indicated in the Notice of Intent (NOI). The property is currently zoned for agricultural purposes, and the proposal involves the expansion of

existing agricultural activities. This aligns with the property's existing land use rights, as the development seeks to expand on the current operations already taking place on the property.

The existing land use rights granted for the property allow for agricultural farming, and the proposed expansion falls within this designation.

3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

Refer to the above section.

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.

The proposed expansion of vineyards on Erf 1995, McGregor, aligns with the objectives of the Western Cape Provincial Spatial Development Framework (PSDF), particularly in supporting the sustainable use of provincial assets. The PSDF emphasizes the importance of agricultural resources in reinforcing the Western Cape's economic foundation, with agriculture contributing significantly to food security, rural livelihoods, and income generation within the region (Western Cape Government, 2014). Expanding grape cultivation on the proposed site enhances these agricultural assets by making productive use of undeveloped farmland, thereby strengthening local agricultural activities and supporting regional agri-processing industries, which are vital to the province's industrial sector.

The PSDF advocates for sustainable farming practices that yield socio-economic benefits while minimizing environmental risks. By situating the new cultivation blocks on previously unused portions of Erf 1995, the project aligns with this sustainable approach, promoting efficient land use without extending the development footprint into sensitive environmental areas (Western Cape Government, 2014). Moreover, as the PSDF calls for coherent land use planning aligned with Provincial Strategic Objectives, this development integrates effectively with regional planning policies by enhancing the productive capacity of agricultural land without encroaching on natural landscapes of scenic or cultural importance.

In terms of landscape integrity and connectivity, the PSDF highlights the necessity of maintaining the continuity of agricultural landscapes, along with ecological corridors and green linkages, to preserve the character of rural areas and protect against fragmentation from unstructured urbanization (Western Cape Government, 2014). The proposed expansion respects these principles by ensuring that the agricultural landscape remains intact and that the development is embedded within the rural setting of McGregor, thus preserving the integrity and character of the provincial landscape.

Finally, the PSDF's spatial implications prioritize maintaining the natural landscape as a 'container' for rural and urban settlements. The proposed development on Erf 1995 aligns with this by ensuring that the expansion harmonizes with the existing farm operations and the rural surroundings, maintaining the scenic and cultural backdrop essential to the Western Cape's tourism and lifestyle offerings (Western Cape Government, 2014).

4.2	The Integrated Development Plan of the local municipality.

4.2.8 Agriculture

This section of the report focuses on the role of the agricultural sector in the economy of Langeberg Local municipality, which forms part of the Cape Winelands District municipality, with reference to the broader Western Cape. The intention is to provide an overview of the trends in agriculture within the Langeberg municipal area and to establish the economic value of agriculture to the municipality, particularly with regard to the pressure of an urban edge.

4.2.8.1 Land Capability

Figure 3.2.8.1 of the Langeberg Municipality IDP, (2023) shows the land capability based on the soil classification only. This shows that soil suitable for arable agriculture are mostly located east of Robertson and east and west of Bonnievale. The majority (95.56%) of the municipality is suitable for grazing.

Table 3.2.8.2a of the Langeberg Municipality IDP, (2023) shows the composition of permanent crops in the municipality. The largest of these crops are wine grapes, dry and table grapes. To a much lesser extent apples, apricots, pears, plums, peaches, olives and citrus are produced.

Table 3.2.8.2a Enterprise composition – Permanent crops (***source***; LMIDP, 2023)

Item	%	Hectares
Apple	0.52%	138
Apricot	5.91%	1 558
Wine grapes	57.67%	15 210
Dry & Table Grapes	19.92%	5 254
Pear	1.66%	438
Plum	2.87%	758
Peaches	9.07%	2 393
Olives	0.69%	183
Citrus	1.68%	442
TOTAL	100.0%	26 374

4.2.8.2 Agricultural Land Use Pattern

Figure 3.2.8.2 of the Langeberg Municipality IDP, (2023) shows the different types of agricultural/farming practices in the municipality. The agricultural land use map shows that 17.36% of the land has been cultivated. These most intensely cultivated areas are located between Robertson and Ashton and also around and to the east of Bonnievale.

4.2.8.6 Food security

The Langberg Municipal area is well endowed in terms of its natural resources for the production of a number of agricultural produce and livestock farming. In terms of food security this area is a contributor in terms of not only the local supply within Langberg but also as national supply.

- Approximately 17.36% of the land in the municipality, i.e. 78450ha is cultivated.
- It is estimated that 28142ha of land is required for food security in the Langeberg municipality. In terms of dietary requirements for plants, 5493ha is required and 22649ha is required for animal foods. There is thus more than sufficient land available to supply for the needs of the current population of the municipality.
- There are indications that the current formal food and grocery distribution network, mainly in the form of corner shops, supermarkets and shopping centres, will come under increasing pressure as a result of food inflation and decreasing purchasing power among most income groups but particularly the poor.

4.3.	The Spatial Development Framework of the local municipality.

Extract from the Langeberg Municipality Draft Spatial Development Framework (LMSDF) (2023-2028):

"*Chapter 6 of the LMSDF identifies land and soil as critical natural resources that underpin agricultural opportunities in the region and provides specific guidelines for their conservation, protection, and use.*

Conserve and preserve high potential agricultural land:

- *Protect and preserve agricultural resources (productive land and landscapes): High potential unique agricultural land, Agricultural land of significant (medium) value, Other Agricultural Areas, Smallholdings and agricultural uses.*

- *Prohibit any development that will contradict or may have a significant impact on the cultivation of land with high and significant (medium) agricultural potential (e.g. settlement development and mining).*

- *Strengthen agricultural value chain and support the preparation of agricultural produce for distribution (e.g pack sheds and cool storage) and - tourism development on farms.*

- *Promote and protect agricultural units of different sizes where appropriate (smaller units: Klaas Voogds – tourism, along water sources, larger units: Langeberg north).*

Approximately 6% (26 610 ha) of the Langeberg municipal area is being cultivated. Agricultural cultivation is mostly intensive, comprising irrigated vineyards, orchards and pastures. Crop cultivation according to subregion: Keisie: vineyards (dry climate, naturally limed soils, high slopes and on fertile alluvial soil along riverbanks) and olives; Anysberg: honey bush tea and conservation; Wabooms Valley or Brakrivier Valley: wheat and Proteas; Breede River: large scale fruit, wine, tomatoes, pumpkin variants, vegetables, and melons; McGregor and north of Riviersonderend Mountains: extensive vineyards. Koo Valley: apples, pears, apricots and peaches. Dairy farming has been reduced drastically and milk is imported from the Overberg District.

Agri-processing and agriculture are Langeberg Municipality's major economic activities and employer. Substantial volumes of cultivated produce are dried or canned. In 2019 Agriculture, Foresting & Fishing contributed 10.9% to Langeberg Municipality's GVA along with 25.9% to employment. Agriculture is one of the five biggest contributors to Langeberg Municipality's economy, yet agriculture's contribution is slowly decreasing as do the number of commercial farming entities."

Proposed cultivation of the farm is in line with the LMSDF in the following ways:

→ The proposed cultivation blocks are situated on arable land identified as having high agricultural potential. By using the productive agricultural land, the proposed development supports the LMSDF's objective to protect and preserve agricultural resources, including high-potential unique agricultural land.

→ The proposed expansion contributes to strengthening the agricultural value chain, as it supports primary agricultural production that can be further processed or prepared for distribution. This aligns with the LMSDF's focus on enhancing agricultural productivity and value-adding activities, such as packing and storage facilities.

→ The proposed cultivation of additional blocks is consistent with the agricultural activities prevalent in the Langeberg Municipality, particularly in regions where vineyards dominate agricultural production. By contributing to the existing agricultural profile, the project sustains the region's agricultural identity and economic contribution.

→ Agriculture is a cornerstone of the Langeberg economy, contributing 10.9% to the municipality's Gross Value Added (GVA) and 25.9% to employment (2019 data). The proposed vineyard cultivation directly supports this economic sector by enhancing agricultural productivity, creating employment opportunities, and sustaining the viability of the municipality's agricultural economy.

4.4.	The Environmental Management Framework applicable to the area.

No EMF in place.

5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.
None that the EAP is aware of.	
6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.
The Western Cape Biodiversity Spatial Plan (WCBSP) identifies areas requiring conservation to achieve biodiversity targets, including Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), which are prioritized for protection. While some degree of environmental impact may be permissible in ESAs under specific circumstances, the same does not apply to CBAs, which require stringent conservation efforts. The Western Cape Biodiversity Spatial Plan (2023) maps most of the study area as Ecological Support Area (ESA1). The WCBSP identifies areas requiring conservation to achieve biodiversity targets, including Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), which are prioritized for protection. While some degree of environmental impact may be permissible in ESAs under specific circumstances, the same does not apply to CBAs, which require stringent conservation efforts. In light of the above, the proposed additional new cultivation blocks will only result to a loss of ESA1. It is also important to note that the loss only relates to clearance of indigenous vegetation, and therefore no loss of plant species of conservation concern. The preferred site development plan (Alternative 3) locates the cultivation areas on medium and medium-high sensitive areas, altogether avoiding the area marked as high botanical sensitivity as well as areas containing plant species of conservation concern.	
7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.
N/A	
8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.
Not changed from the one submitted.	
9.	Explain how the proposed development will optimise vacant land available within an urban area.
The site proposed is located outside of an urban area.	
10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.
→ There is existing road infrastructure in place to accommodate the proposed development. → The farm has existing water rights to support the proposed development. → The farm will optimise the available arable land on the property for agricultural purposes, mainly vineyards.	
11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).
The farm has existing water use rights which have been indicated above to be sufficient for the proposed development. No other services are required for the proposed new vineyard blocks.	
12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated

	Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

The proposed expansion of vineyards on Erf 1995, McGregor, aligns with both the need and desirability criteria as outlined in the Department of Environmental Affairs' (DEA) Integrated Environmental Management Guideline on Need and Desirability (2013). By introducing two new blocks of vineyards, this development supports economic and agricultural growth in the area, contributing to local food production and rural economic stability.

Need

The need for the proposed vineyard expansion is justified by the increasing demand for high-quality agricultural products, particularly within the Western Cape, which is recognized for its wine production. Expanding grape cultivation addresses this demand and supports the broader agricultural sector, which is a critical component of both the local and provincial economy. This aligns with the DEA's guideline emphasis on ensuring developments fulfill an essential community or economic need by supporting agricultural outputs that contribute to food security, employment opportunities, and export revenue. Furthermore, expanding these vineyards allows the farm to remain economically competitive, bolstering its sustainability within a global and regional market that relies on continuous and productive agricultural use of land (DEA, 2013).

Desirability

The desirability of the vineyard expansion is reinforced by the development's compatibility with the surrounding agricultural landscape and the Western Cape's reputation for wine tourism. The DEA's guideline on desirability encourages developments that complement existing land use, contribute positively to the local economy, and align with provincial land-use frameworks. By expanding vineyards on an already operational farm, the proposed activity supports the agricultural character of the McGregor area without disrupting ecological or scenic values, thus preserving the integrity of the rural landscape.

The expansion also enhances the long-term viability of the farm, promoting sustainable land use in line with the Provincial Spatial Development Framework*'s* objectives of reinforcing agricultural assets and preventing landscape fragmentation. This development thus not only meets the need for expanded agricultural production but also adds economic and cultural value, benefiting the community and aligning with provincial goals for sustainable agricultural growth.

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

N/A

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

The Proof of PPP document is attached as **Appendix F.**

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

None that the EAP is aware of.

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

Langeberg Municipality
Cape Winelands District Municipality
DEA&DP: Land Use
Western Cape Department of Agriculture
BOCMA
Cape Nature

5. if any of the State Departments and Organs of State did not respond, indicate which.

Cape Winelands District Municipality

6. Provide a summary of the issues raised by I&APs and an indication of the manner in which the issues were incorporated into the development proposal.

Summary of the comments and responses.

Name/ Department	**Comments**	**Responses**
Langberg Municipality	• No objection to the proposal	• Noted
BOCMA	• No objection to the proposal	• Noted
DEADP	• No specific details regarding the placement of the irrigation pipelines in the activity description. • The activity description must include details of the proposed development and its associated infrastructure which must also be included in the site development plan. • Clarity must also be provided whether the proposed development will require the erection of shade netting. • Applicability of the listed activity must be reassessed. According to the botanical specialist report, the vegetation found on the proposed site is classified as a least threatened ecosystem. • Page 20 of the draft BAR indicates that water rights for the proposed expansion is	• The dripper lines will be located above ground in the vineyard and will be between 16-20 mm in diameter and irrigation will be via dripper lines, PVC and HDPE pipes. • The schematic diagram showing the proposed irrigation pipelines has been added to the BAR • No shade netting will be installed for either block. • This has been amended in the report. And therefore Activity 12 of Listing Notice 3 is not applicable. • These sections have been amended in the report. The

	pending, and page 26 of the draft BAR indicates that the farm has existing water rights. Clarity must be provided whether additional water is required for the proposed development.	farm's existing water rights for groundwater abstraction 10863 m^3 (Appendix J) are sufficient, and no additional water use license application (WULA) is required.
Cape Nature	• Query the brush-cut area mapped as high sensitivity, as the shrub cover would be impacted by the activity, although the geophytes and annual are enhanced as described.	• This area is part of the proposed vineyards. It should be noted that mitigation measures such as demarcation of the development area prior to construction, provided by the terrestrial specialist will be undertaken to prevent accidental damage to areas outside the approved development footprint.
	• Notes section 7.2 from the National Biodiversity Offset Guideline and recommends further advise from the terrestrial biodiversity specialist be obtained regarding the SoCC, as the proposed development will impact on these plants SoCC	• A new preferred alternative was explored, which excludes the area mapped as habitat for plant species of conservation concern. Extract from the terrestrial biodiversity specialist: " *The most obvious operational phase impact is likely to be increased habitat fragmentation and loss of current levels of terrestrial ecological connectivity across the cultivated parts of the currently natural study area. The overall intensity of this change is likely to be low in a regional context, as there will still be fairly good ecological connectivity in the central and northern part of the site. However, there is currently cultivation to the west, north and south of the site, so ecological connectivity in the overall study area has already been compromised and restricted.* *The proposed cultivation will not result in the loss of any mapped CBAs, but most of it is mapped as ESA1 (Ecological Support Area).* *The project is not likely to have a negative impact on ecological processes in the region, as it does not impact on any major ecological corridors, wetlands or climate change corridors*." Additionally, the vegetation type on the study area is Least Threatened
	• With regards to the motivation of the alternatives, it was recommended that further alternative investigations must be made and presented to the specialist for an impact assessment and advise regarding the need of the biodiversity offset with regards to the SoCCs.	• There is clear motivation in Section H of the BAR regarding the assessment of alternatives and other location are not practical or feasible for this type of development.

	• Notes the organic practices undertaken by landowner which fall broadly under the concept of conservation agriculture. Recommends that information regarding the practices is presented to the botanical specialist as additional mitigation measures for consideration, since organic practices will not reduce the extent of habitat loss from cultivation and that it will reduce the edge effects and additional impacts as a result of cultivation. • Recommended that the following should be undertaken in the application: o Agricultural potential study including maps o Additional feasible layout alternatives which reduce the residual impact. o Updated botanical assessment assessing all feasible development layouts and the need for an offset due to the impact on SCCs.	• The mitigation measures recommended by the terrestrial biodiversity specialist involves demarcating of the approved development areas prior to site development so that no accidental disturbance outside the approved development areas should occur. • Refer to **Figure 3b** of the BAR for the areas surveyed on site. • There is clear motivation in Section H of the BAR regarding the assessment of alternatives and other location are not practical of feasible for this type of development • A new layout alternative (Alternative 3) with reduced botanical impact was explored. • The terrestrial biodiversity impact assessment was updated. The mitigation measures recommended by the terrestrial biodiversity specialist involves demarcating of the approved development areas prior to site development so that no accidental disturbance outside the approved development areas should occur.
Department of Agriculture	• No objection to the proposed application	• Noted

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&APs must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that *"Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."*

All the comments received from I&APs on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&APs and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, 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 G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. Groundwater

1.1.	Was a specialist study conducted?	YES	NO x
1.2.	Provide the name and or company who conducted the specialist study.		
N/A			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
N/A			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
N/A			

2. Surface water

2.1.	Was a specialist study conducted?	YES	NO x
2.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		
N/A			

3. Coastal Environment

3.1.	Was a specialist study conducted?	YES	NO x
3.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.		
N/A			
3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.		
N/A			

3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.
N/A	

4. Biodiversity

4.1.	Were specialist studies conducted?	YES x	NO
4.2.	Provide the name and/or company who conducted the specialist studies.		
Nick Helme - Nick Helme Botanical Surveys			
4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.		

The botanical assessment for the proposed cultivation on Erf 1995, McGregor, conducted by Nick Helme Botanical Surveys, was informed by an integrated suite of national and provincial biodiversity planning tools. These include the CapeNature Western Cape Biodiversity Spatial Plan (2023), the South African Vegetation Map (Mucina & Rutherford, 2006, updated in 2018), the National Biodiversity Assessment (NBA), the National Spatial Biodiversity Assessment (NSBA), the Red List of South African Plants (Raimondo et al., 2009), and the National Freshwater Ecosystem Priority Areas (NFEPA) atlas. These informants provided a robust spatial and ecological framework to guide the assessment, ensure alignment with conservation priorities, and shape the proposed development in an environmentally responsible manner.

The Western Cape Biodiversity Spatial Plan (WCBSP, 2023) identifies the site primarily as an Ecological Support Area 1 (ESA1), with no mapped Critical Biodiversity Areas (CBAs) or freshwater features. However, ground-truthed fieldwork confirmed the presence of plant Species of Conservation Concern (SoCC) most notably, the Near Threatened *Brianhuntleya intrusa* and *Vulnerable Aspalathus lactea ssp. breviloba*. While the ESA1 designation permits some level of disturbance, it also mandates strict mitigation to ensure the continued support of ecological processes. This has directly influenced the proposed development layout by avoiding the 10 ha of High botanical sensitivity on-site, where these SoCC occur.

The South African Vegetation Map classifies the study area as Robertson Karoo, a vegetation type considered Least Concern at the national level. However, with only <1% formally conserved and under 84% of its original extent remaining, Robertson Karoo is vulnerable to ongoing transformation, particularly from agricultural development. This classification informed the need to reduce habitat loss and maintain ecological integrity, particularly in areas supporting high endemism and floristic diversity.

The National Biodiversity Assessment (NBA), along with the NSBA (2004), situates the project area within the Succulent Karoo biome and the Greater Cape Floristic Region (GCFR) both recognized as global biodiversity hotspots. The NBA's emphasis on the conservation of threatened ecosystems further justified the implementation of a Search and Rescue programme for translocatable species, including *Brianhuntleya intrusa, Tulista pumila,* and *Anisodontea sp*., as part of the pre-construction mitigation strategy.

The Red List of South African Plants has been pivotal in identifying and mapping botanical sensitivity of the site. The on-site population of ~1,000 individuals of *Brianhuntleya intrusa* and ~10 individuals of *Aspalathus lactea ssp. breviloba* has strongly influenced the delineation of development areas. Approximately 63% of the site is classified as High botanical sensitivity, with the remaining areas being mapped as medium and medium high as shown in **Figure 4**. Due to the presence of these plant species of conservation concern, which are concentrated in the central portion of the site, the previously preferred layout (Alternative 1) was found to encroach upon this sensitive area. As a result, a new layout alternative was explored in order to avoid direct impact on the core population zones of these species, minimize habitat loss, and align the development footprint with areas of lower sensitivity.

Although the NFEPA framework was consulted, it was determined to be of limited relevance due to the absence of natural freshwater features on the site. Nonetheless, potential operational phase impacts, such as pesticide or fertigation drift from the cultivation areas into adjacent natural vegetation, were acknowledged. The applicant has therefore committed to organic cultivation methods, which significantly reduce the risk of chemical disturbance to sensitive flora.

The evolution of the alternatives:

Initially, Alternative 1 was proposed as the preferred layout, however, it overlapped with the central portion of the site where the highest concentration of Species of Conservation Concern (SoCC) is found. Notably, it would have resulted in the loss of approximately 10% of the local population of *Brianhuntleya intrusa*. In response to this, a new layout Alternative 3 was explored and developed.

Alternative 3, now the newly preferred layout, represents a substantial improvement in terms of biodiversity conservation and alignment with ecological planning tools. This development layout reduces the development footprint from 3.8 ha to 2 ha, comprising a 1.5 ha of olive grove and a 0.47 ha vineyard, with above-ground Netafim dripper irrigation systems that will be utilised on the farm. All infrastructure, including pipelines, will be situated above ground and mostly confined to areas of medium and medium-high sensitivity. Where infrastructure intersects areas of higher sensitivity, site-specific mitigation measures will be implemented to avoid or reduce impacts on sensitive plant populations and habitats. This alternative not only reduces ecological impact but also enhances the project's long-term agricultural viability by leveraging areas with deeper soils and better moisture retention.

The botanical impact of Alternative 3 during the construction phase is assessed as Low to Medium negative, similar to Alternative 2, and significantly less than that of Alternative 1. While Alternative 3 still entails the loss of 2 ha of natural vegetation, it completely avoids the core populations of SoCC and, as such, is considered an equally preferred alternative to Alternative 2 from a botanical perspective.

To further mitigate botanical impacts, a Search and Rescue operation will be undertaken prior to any construction activities. This includes the translocation of all movable bulb and succulent species, *including Brianhuntleya intrusa*, *Tulista pumila*, and the unnamed purple-flowered *Anisodontea* species, where applicable.

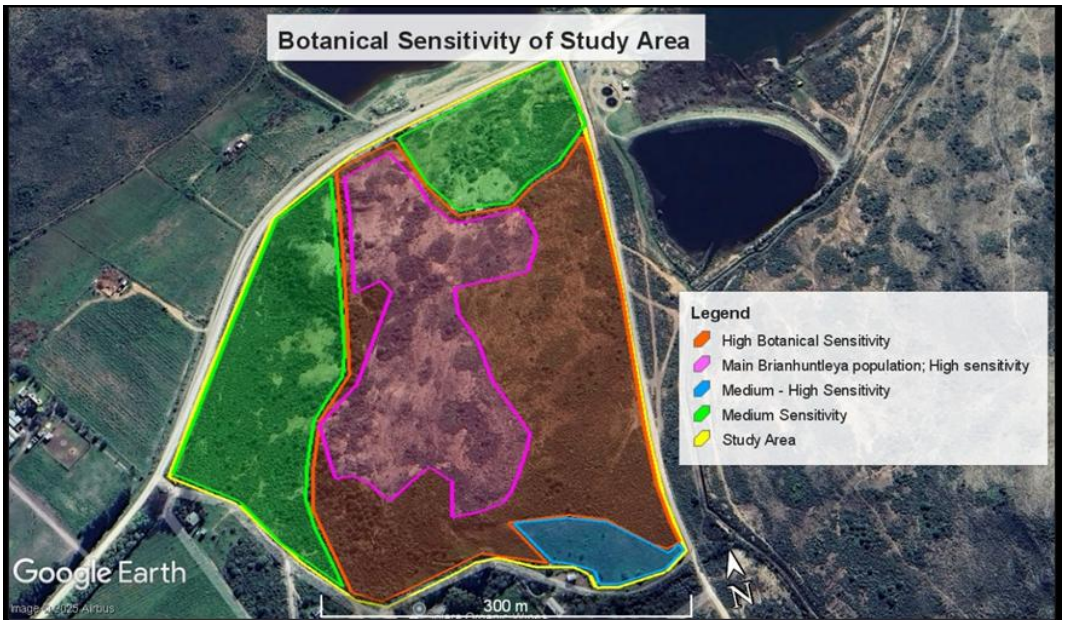


Figure 4: Botanical sensitivity map of the study area. (*source:* Helme, 2024).

4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

The Western Cape Biodiversity Spatial Plan (WCBSP, 2023) identifies the majority of the proposed development site as an Ecological Support Area 1 (ESA1), with no Critical Biodiversity Areas (CBAs) mapped either terrestrial or aquatic ecosystems within the study area (**Figure 5**). ESA1 areas are prioritised for maintaining ecological connectivity and ecosystem functionality, especially in support of adjacent CBAs or protected areas. While some land use is permitted in ESA1s, the Biodiversity Spatial Plan (BSP) emphasizes that such activities must not compromise ecological processes.

Importantly, the absence of mapped CBAs within the site is likely due to a lack of fine-scale, ground-truthed floristic data at the time of BSP compilation. Site-specific botanical assessments revealed the presence of at least 1,000 individuals of the Near Threatened *Brianhuntleya intrusa*, as well as the Vulnerable *Aspalathus lactea ssp. breviloba*, which prompted the classification of approximately 10 ha (63% of the site) as having High botanical sensitivity. This finding aligns with the BSP's objective of integrating detailed field data to refine conservation priorities and strengthen planning decisions.

In line with the BSP's management guidelines which include avoiding irreversible biodiversity impacts, minimising habitat loss, and applying effective mitigation the site assessment initially compared three layout alternatives. Alternative 1 (3.8 ha) included development over 2.1 ha of Medium-High and High sensitivity vegetation. Although mitigation was proposed, this layout would still result in the loss of up to 10% of the *Brianhuntleya intrusa* population. Additionally, Alternative 2 (4.1 ha) recommended by the botanical specialist, avoided these sensitive areas entirely by relocating development to the previously disturbed northeastern portion of the property. However, this area was found agriculturally unsuitable due to its shallow, compacted soils, making Alternative 2 infeasible from a farming perspective.

Following the first round of public participation and concerns raised by the relevant authorities regarding the previously preferred layout (Alternative 1), a new preferred alternative (Alternative 3) has been developed, offering an improved balance between agricultural viability and biodiversity protection. Alternative 3 restricts the development footprint to approximately 2 ha, deliberately avoiding the most sensitive southeastern portion of the site while minimising overlap with areas of High botanical sensitivity. Notably, Alternative 3 significantly avoids potential impacts *on Brianhuntleya intrusa and Aspalathus lactea ssp. breviloba*, through this revised layout. As a result, this layout is considered comparable to that of Alternative 2 and is thus supported by the botanical specialist.

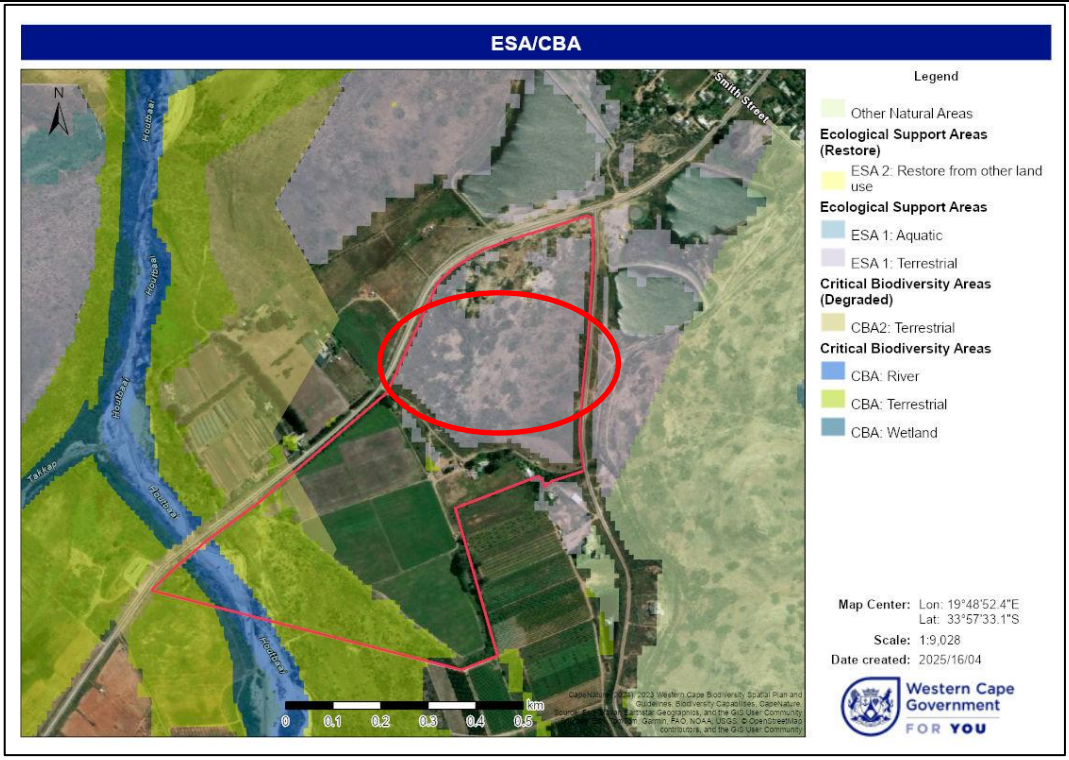


Figure 5: Most of the site is mapped as Ecological Support Area (ESA1); *source*: WCBSP (2024).

4.5.	Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

The primary site-specific feature affected by the proposed development is the Robertson Karoo vegetation, classified as Least Concern nationally but poorly conserved, with less than 1% formally protected and less than 84% of its original extent remaining (Government of South Africa, 2022; Rouget et al., 2004). The botanical specialist reveals that if Alternative 1 would be preferred, this will result to the permanent loss of 3.8 ha (Alternative 1) of this vegetation, comprising 1.65 ha of Medium sensitivity and 2.1 ha of Medium to High and High sensitivity areas. This loss represents a localized impact on the ESA1's function of maintaining ecological support, as the vegetation contributes to the biodiversity of the Succulent Karoo biome within the Greater Cape Floristic Region. The assessment notes that the site's High sensitivity areas (10 ha, 63% of the study area) support significant plant diversity (>70%) and two SoCC: *Brianhuntleya intrusa* (Near Threatened, ~1,000 plants) and *Aspalathus lactea ssp. breviloba* (Vulnerable, ~10 plants). Alternative 1 will result in the loss of less than 10% of the *Brianhuntleya intrusa* population, primarily in the southeastern corner, while *Aspalathus lactea ssp. breviloba* remains unaffected. Alternative 2 avoids impacts on both SoCC by targeting the previously disturbed northeastern corner. The new preferred alternative (Alternative 3) will only result to loss of (2 ha) medium and medium-high botanical sensitive vegetation on the development footprint, avoiding considerable loss of all plant species of conservation concern identified on site.

The BSP's function of ensuring ecological connectivity is another critical feature influenced by the development. The study area is surrounded by existing cultivation to the west, north, and south, and it already experiences compromised connectivity (Helme, 2025). The proposed cultivation will further fragment the site, particularly in the developed areas, reducing terrestrial ecological connectivity across the 2-ha footprint. However, the assessment concludes that this impact is of Low to Medium negative significance regionally, as the central and northern High sensitivity areas (10 ha) will be avoided so that it maintains a fairly good connectivity. Additionally, operational phase impacts, such as pesticide and fertigation drift, could indirectly affect adjacent natural vegetation by disrupting pollination and seed set (Knight et al., 2005; Pretorius, 2010). The use of organic cultivation methods, as proposed, mitigates this risk, aligning with the BSP's objective to reduce indirect ecological impacts.

These impacts on site-specific features have profoundly shaped the proposed development's design and mitigation strategy. The BSP's management guidelines, which emphasise avoiding high-priority areas, minimising habitat loss, and

mitigating unavoidable impacts, have guided the delineation of development footprints. Alternative 2 was proposed to avoid High and Medium-High sensitivity areas, particularly the southeastern corner with *Brianhuntleya intrusa,* by targeting the Medium sensitivity northeastern corner. However, the applicant now preferred Alternative 3 due to its agricultural feasibility, as the deeper, loamy clay soils in the southeastern and southwestern areas offer superior moisture retention and nutrient availability, critical for high-value crops in the semi-arid McGregor region. The northeastern corner, previously disturbed by quarrying, has shallower soils less suitable for cultivation, rendering Alternative 2 economically unviable. To address potential ecological impacts, robust mitigation measures have been integrated into the proposed layout, including demarcation of development areas to prevent accidental encroachment into sensitive vegetation. Additionally, Search and Rescue operation for at least 15 translocatable bulb and succulent species, including *Brianhuntleya intrusa*, *Tulista pumila*, *Anisodontea sp*. as well as unnamed purple flowered *Anisodontea* from within the development footprints will be implemented prior to any site development.

4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.

N/A

4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

Since April 2024, the farm has not recorded sightings of the Southern Black Korhaan on the property. Occasional sightings of the Black Harrier have been noted further up the mountain, but not on Houtbaai Farm itself. Regular sightings of the African Harrier Hawk (*Kaalwangvalk*) and Fish Eagle occur at Houtbaai Farm. If significant species (e.g., Southern Black Korhaan or Black Harrier) are observed in the future, the farm will report these to the relevant authority (e.g., CapeNature or the botanist overseeing environmental compliance) for guidance.

It is recommended that a site walk is conducted ahead of land preparation a site scan for Black Harrier nests must be conducted before cultivation commences on site. Should any nests be found, the proposed cultivation must be postponed to a later date. Black Harriers, build their nests on the ground, in tall vegetation near wetlands or in reedbeds, using dried vegetation like stems, grass, reeds, and weeds. Breeding Season: In South-western South Africa, egg-laying typically takes place between June and November, with peaks in July and September. The female lays between 3-5 eggs, which are bluish-white. The female handles the incubation duties for about a month, while the male provides food. After the nestlings hatch, the male continues to bring food to the nest, while the female feeds the young. The young fledge after about five to six weeks.

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
N/A

6. Heritage Resources

6.1.	Was a specialist study conducted?	YES x	NO
6.2.	Provide the name and/or company who conducted the specialist study.		

A Notice of Intent to Develop was drafted by Jonathan Kaplan. Heritage Western Cape has confirmed that no further assessment is required.

6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.

Heritage Western Cape confirmed that the proposed cultivation of vineyards will not impact on heritage resources, therefore, no further assessment is required. See comment attached as **Appendix E** in this report.

7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.
Refer to the above.

8. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

McGregor is a small, rural town with a close-knit community, typically characterized by a mixture of long-term residents and newcomers, including retirees and individuals seeking a quieter lifestyle. The population is relatively small, and the area has a strong sense of local identity, with many people having lived in the area for generations. There is also a seasonal influx of tourists and visitors, which impacts the local population during peak periods, especially over weekends and holiday seasons.

The economy of McGregor is primarily based on agriculture, with a focus on wine production, fruit farming, and small-scale horticulture. The surrounding areas are known for their vineyards, and agriculture remains a central aspect of local livelihoods. Tourism also plays a significant role in the local economy, with McGregor attracting visitors due to its scenic beauty, cultural heritage, and proximity to nature reserves. The local economy is supported by hospitality-related businesses such as guesthouses, restaurants, and artisanal shops, catering to both domestic and international tourists.

McGregor has a vibrant cultural scene, with local festivals, arts and crafts, and a strong sense of community. The town is known for its historical architecture, local markets, and music festivals, attracting both residents and visitors to participate in social and cultural activities. The town has a number of social organizations, churches, and community groups that contribute to social cohesion. There is a strong sense of pride in the town's heritage, and many activities centre around maintaining and celebrating McGregor's historical and cultural identity.

Like many rural towns, McGregor faces challenges such as limited employment opportunities, seasonal unemployment, and economic vulnerability tied to agriculture and tourism. There may also be challenges related to access to healthcare, education, and social services, particularly for more vulnerable populations such as the elderly and those living in outlying areas.

8.2.	Explain the socio-economic value/contribution of the proposed development.

The development will provide both temporary and permanent employment opportunities during both construction and post-construction phases. During the construction phase, jobs will be created for workers involved in building infrastructure, land preparation, and other construction-related activities. In the post-construction (operational) phase, the cultivation of olive groves and vineyards will support long-term employment in a variety of roles, including farm labourers, vineyard managers, agricultural technicians, and administrative support personnel. While the scale of employment may be modest, the initiative is anticipated to make a positive contribution to reducing unemployment within the local community.

The expansion will stimulate the local economy through the creation of direct and indirect economic activity. Direct contributions include wages paid to workers, which will increase local spending power. Indirectly, local businesses such as suppliers of agricultural equipment, materials, and services (e.g., irrigation systems, fertilizers, and machinery) will experience increased demand.

The development of new cultivation blocks will contribute to the region's agricultural output, enhancing the economic sustainability of McGregor, an area known for its agricultural industry. The expansion will also strengthen the local agricultural base, making it more resilient to market fluctuations and increasing the region's competitiveness in the global wine market.

8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

The applicant has not proposed any specific social initiatives aimed at addressing the needs of the community or uplifting the area at this stage. But the most crucial initiative that the employer will implement is job provision during construction and post-construction phases.

8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

Positive

- → The development will enhance agricultural production, which will support the local economy and generate employment opportunities during both construction and operational phases. This will contribute positively to the well-being of the local community by improving livelihoods.
- → By utilizing suitable soil for vineyard farming, the project enhances the agricultural character of the area, reinforcing the sense of place and contributing to sustainable land use in an agriculturally zoned region.
- → The site's location within an agricultural area ensures that the activities associated with the proposed development align with the existing land use, thereby avoiding any significant intrusion or disturbance to surrounding communities.
- → The expansion to existing vineyard indicates the success of the existing and the need for expansion

Negative

- → Minor noise impacts from machinery and vehicles will occur during the construction phase. However, these impacts are short-term, localized, and will not exceed permissible levels. Mitigation measures, such as restricting construction activities to daylight hours, will further reduce the noise impact.
- → The transformation of the site from its current wilderness-like appearance to an area of cultivated vineyards may alter the visual character slightly. However, it is important to note that this change occurs within an existing agricultural setting, mitigating the sense of significant visual or sense-of-place disruption and will create an improved aesthetic for the outskirts of the town of McGregor
- → Construction activities may generate dust, which could temporarily impact air quality. Dust suppression methods, such as regular watering of exposed surfaces, will minimize this impact.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred property and site alternative.

The preferred property and site alternative for the proposed agricultural expansion is situated on Erf 1995, McGregor, an established and operational farm located south of the McGregor town. This property is already zoned for agricultural use and is primarily utilised for wine grape production, making it an appropriate and logical location for the proposed expansion, which entails the addition of new cultivation blocks for olive and wine grape production.

The northern portion of Erf 1995, which remains undeveloped and is currently covered by natural and semi-natural vegetation, has been identified as the optimal area for the proposed cultivation blocks. This selection is based on the findings of a detailed soil analysis conducted across the farm, which confirmed the southwestern and southeastern sections of the study area contains soil with favourable physical and chemical properties suitable for the intended crops. The proposed cultivation areas, delineated in **Figure 6**, lie within the most arable land on the property, characterised by greater soil organic carbon content, which enhances the land's agricultural productivity. This strategic use of the property's highest agricultural potential land supports the objectives of the Western Cape Provincial Spatial Development Framework (PSDF), which promotes the sustainable utilisation and protection of productive agricultural land. The proposed development is therefore aligned with provincial priorities to maintain and optimise the use of existing agricultural resources.

Importantly, no alternative site locations were considered beyond Erf 1995, as the expansion is confined to the applicant's existing property, and the intention is to increase productivity within the current farm. The proposed expansion is limited in scale, covering only 2 ha of land, and consists of two distinct cultivation blocks:

→ **Block 1:** Olive grove - A clearance of approximately ±1.5 ha.
→ **Block 2:** Wine grapes - Clearance of ±0.50 ha.

The selection of the northern section of the property for this expansion also reflects a deliberate effort to avoid sensitive ecological areas. The undeveloped southern boundary of the property is mapped as a Critical Biodiversity Area (CBA) and lies adjacent to a river system that traverses the farm. By situating the proposed cultivation in the northern section, the

development avoids clearance of indigenous vegetation within the CBA and minimises proximity to the river, thereby demonstrating a strong commitment to sustainable land use and the preservation of conservation-worthy habitats on the farm.

The property (Erf 1995) measures approximately 39.47 ha in extent, with the existing development footprint occupying roughly 12.68 ha. The proposed expansion will increase the development footprint by approximately 2 ha (Alternative 3), which is a reduction from the originally proposed 3.8 ha under Alternative 1, highlighting the proponent's responsiveness to environmental concerns and willingness to limit disturbance to high sensitive areas.

Figure 6: Alternative 3 (Preferred) site layout based on soil analysis and property topography.

Provide a description of any other property and site alternatives investigated.

No alternative properties or site locations were investigated for the establishment of the proposed additional cultivation blocks. The proposed development is specifically intended to occur within the boundaries of Erf 1995, McGregor, adjacent to the existing vineyard operations. The farm is already zoned for agricultural use and actively engaged in wine grape production, making it a logical and practical choice for expansion. The motivation for the project is to enhance the current farming operations by introducing additional cultivation areas for wine grapes and olives, making optimal use of available arable land within the existing operational footprint. As such, the proposal is site-specific, and the use of other properties or off-site locations was not deemed necessary nor feasible. The focus on internal expansion within Erf 1995 ensures that the project aligns with the current land use rights, infrastructure availability, and operational context, while avoiding the need to disturb undeveloped or non-agricultural land elsewhere.

Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.

The preferred property and site alternative for the proposed vineyard and olive grove expansion on Erf 1995, McGregor, was selected based on a combination of key factors, including land ownership, existing land use compatibility, infrastructure availability, and site-specific agricultural potential. The property is already actively used for wine grape cultivation and is zoned for agricultural use, making it a logical and appropriate location for the proposed expansion. Since the applicant is the legal owner of Erf 1995, the expansion can proceed without the complexities associated with acquiring new land or modifying land use rights, thereby streamlining the planning and approval processes.

From a logistical and operational perspective, the site offers significant advantages. The existing infrastructure on the property such as internal access roads and irrigation networks, provides a sound basis for cost-effective and low-impact development. By expanding within the boundaries of the current farm, the proposal avoids unnecessary disturbance to undisturbed areas and negates the need for establishing entirely new support systems, thereby reducing the project's overall environmental footprint.

In support of the site's suitability, a detailed soil analysis was conducted across the property. The results confirmed that areas in the northern section, specifically the areas demarcated for the preferred site development plan (Alternative 3) on the site, possess optimal soil depth and composition for grape and olive cultivation. These areas are characterized by deep, well-drained soils rich in organic content, making them highly suitable for the proposed agricultural use. In contrast, other portions of the property were either ecologically sensitive, topographically constrained, or lacked comparable soil quality.

A site selection matrix was developed to evaluate the potential cultivation areas based on multiple criteria, including soil fertility, slope stability, ecological sensitivity, and proximity to existing infrastructure. The western and southwestern sections of the study area consistently scored highest across all evaluation parameters, making it the most viable and sustainable choice for development. Furthermore, this area, under Alternative 3 avoids areas mapped as Critical Biodiversity Areas (CBAs) and those identified as containing Species of Conservation Concern (SCCs), ensuring that the expansion proceeds in an environmentally responsible manner.

Provide a full description of the process followed to reach the preferred alternative within the site.

The selection of the preferred layout for the proposed cultivation blocks was the outcome of a systematic, iterative planning process that integrated environmental considerations, agricultural viability, infrastructure constraints, and public participation inputs. From the onset, the project was intended to be implemented within the boundaries of the existing operational farm, and therefore, the site selection process focused exclusively on identifying the most suitable areas within Erf 1995. Three layout alternatives were developed and assessed in sequence, each shaped by findings from specialist studies and feedback from the public participation process.

Alternative 1 (Initial Preferred Alternative)

Alternative 1 was the first layout identified during the conceptual phase and was initially favoured by the applicant. This alternative proposed the placement of new cultivation blocks on areas containing deep, loamy clay soils, which are highly favourable for grape and olive production. Additionally, the location was topographically suitable and situated close to existing farm infrastructure, including internal access routes and irrigation lines, thereby reducing the need for new infrastructure and limiting potential environmental disturbance. However, during the environmental assessment phase, it was revealed that some of the proposed areas under Alternative 1, specifically block 2 overlapped with zones of high botanical sensitivity and to areas of plants Species of Conservation Concern (SCCs), notably *Brianhuntleya intrusa* and *Aspalathus lactea ssp. breviloba.*

Alternative 2

In response to these environmental concerns, particularly those raised during the botanical assessment, Alternative 2 was developed in consultation with the appointed botanical specialist. This layout shifted the proposed cultivation blocks to areas of lower ecological sensitivity in an effort to avoid all zones mapped as high or medium-high botanical sensitivity. While this approach successfully addressed biodiversity concerns, it introduced significant agronomic limitations. The relocated areas were previously disturbed and exhibited poor soil conditions with limited fertility, rendering them unsuitable for sustainable grape or olive cultivation. Consequently, this alternative was deemed agriculturally unfeasible.

Alternative 3 (New Preferred Alternative)

Following the first round of public participation, further concerns were raised about potential botanical impacts under Alternative 1. This prompted the development of Alternative 3, which represents a compromise between agricultural and

ecological priorities. Informed by both the soil analysis and botanical assessment, Alternative 3 avoids all areas of high botanical sensitivity and excludes habitats containing SCCs. It retains placement within zones identified as having suitable soil depth and composition for cultivation and significantly reduces the overall development footprint from 3.8 ha (under Alternative 1) to 2 ha. This demonstrates the applicant's commitment to minimising ecological impact while ensuring continued agricultural productivity.

Provide a detailed motivation if no property and site alternatives were considered.

No alternative properties or site locations were considered for the proposed expansion, as the project is purposefully designed to occur within the boundaries of the existing agricultural property. This decision is informed by several strategic, environmental, and operational factors that collectively support the viability and sustainability of developing within the current farm footprint.

Firstly, Erf 1995 is already zoned for agricultural use, with established farming operations primarily focused on grape cultivation for wine production. Continuing the expansion within this agricultural zoned land ensures alignment with existing municipal land use planning frameworks and avoids the need for rezoning or deviation applications. This eliminates regulatory delays and ensures procedural efficiency.

Secondly, a detailed soil analysis, incorporating targeted sampling and laboratory testing, was conducted across undeveloped areas within the property. The results identified specific sites with optimal soil characteristics such as texture, composition, and drainage capacity deemed suitable for high-value crop cultivation, particularly grapes. These findings confirm that the highest agricultural potential exists within the current property boundaries, thereby negating the need to explore external properties. Topography also played a significant role in site selection. The proposed cultivation blocks are situated on relatively flat and even terrain, which is conducive to the efficient operation of agricultural machinery and supports mechanised farming practices. Such conditions also help reduce erosion risk and promote sustainable long-term productivity.

From an environmental perspective, pursuing development on a new site would likely necessitate the conversion of undisturbed land, potentially within Ecological Support Areas (ESA) or Critical Biodiversity Areas (CBA), leading to greater habitat fragmentation and biodiversity loss. By containing the expansion to an area already designated for agriculture and partially transformed, the project minimises ecological disruption and reflects a strong commitment to conserving ecologically sensitive areas in the broader region. Furthermore, the economic and logistical advantages of using the existing property are significant. Procuring new land and establishing the necessary infrastructure such as access roads, irrigation systems, and utility connections would substantially increase capital expenditure and contribute to higher environmental impact. In contrast, the subject property already possesses a functional infrastructure network that can be adapted or expanded in a cost-effective and environmentally responsible manner.

List the positive and negative impacts that the property and site alternatives will have on the environment.

Positive impacts

- → Expanding the vineyards within the existing farm minimises the need to convert undeveloped land in other areas, thereby reducing habitat loss and fragmentation that could otherwise occur if new land were developed.
- → By utilising existing infrastructure, the project reduces the need for new construction, which may otherwise disrupt the environment and increase the development footprint.
- → The selected area's favourable slope and soil type make it highly suitable for vineyard cultivation, promoting efficient and sustainable use of land resources.
- → Expanding the vineyards on this farm utilizes already arable soil, thereby preserving valuable land resources specifically for farming and supporting long-term agricultural productivity.

Negative impacts

- → According to a botanical assessment, approximately 10% of plant species of conservation concern may be impacted by the expansion. To address this, Search and Rescue operations for affected plant species will be implemented to minimise biodiversity loss.
- → During the construction phase, the ploughing and preparation of previously undeveloped land may loosen soil, increasing the risk of erosion. This could lead to soil degradation if not carefully managed through appropriate erosion control measures.

~~1.2.~~	~~Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.~~

~~Provide a description of the preferred activity alternative.~~

~~Provide a description of any other activity alternatives investigated.~~

~~Provide a motivation for the preferred activity alternative.~~

~~Provide a detailed motivation if no activity alternatives exist.~~

~~List the positive and negative impacts that the activity alternatives will have on the environment.~~

1.3.	Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.

The preferred layout alternative for the proposed development involves the establishment of new cultivation blocks dedicated to olive groves and wine grape production. The property is already actively used for viticulture, and the proposed expansion seeks to optimise the use of agriculturally viable land while minimising environmental impacts. Due to the ecological sensitivity and physical constraints of the site, alternative layout options are limited, as few areas within the property simultaneously meet both agricultural suitability and ecological acceptability.

ALTERNATIVE 3 (PREFERRED)

Alternative 3 emerged as the preferred design following botanical specialist input and feedback from the first round of public participation. Concerns were raised regarding Alternative 1, the initially favoured layout, which proposed cultivation in areas identified as having high botanical sensitivity. These areas were shown to support plant Species of Conservation Concern (SCCs), including *Brianhuntleya intrusa* and *Aspalathus lactea ssp. breviloba*, as confirmed by the botanical specialist. Developing in these areas would have resulted in significant ecological disturbance and loss of plant SoCC identified.

In direct response to these concerns, Alternative 3 was formulated with the explicit aim of avoiding all areas of high botanical sensitivity. The layout was carefully reconfigured to exclude zones where SCCs were recorded, thereby mitigating impacts on sensitive vegetation. The total development footprint was reduced from 3.8 ha (as proposed under Alternative 1) to 2 ha under Alternative 3, comprising approximately 1.5 hectares of olive grove and 0.47 hectares of vineyard, both of which will be irrigated using above-ground Netafim PVC / HDPE dripper systems. All infrastructure, including irrigation pipelines, will be installed above ground and largely confined to areas of medium and medium-high botanical sensitivity. Where infrastructure (irrigation pipelines) intersects areas of higher sensitivity, site-specific mitigation measures will be implemented to avoid or reduce impacts on sensitive plant populations. This alternative not only significantly reduces the ecological footprint of the proposed cultivation but also enhances the long-term agricultural viability of the project by utilizing areas with deeper soils and favourable topography for water retention and nutrient availability.

The botanical impact associated with Alternative 3 during the construction phase has been assessed as Low to Medium negative, comparable to that of Alternative 2 and significantly lower than that of Alternative 1. Although it involves the

loss of 2.0 ha of natural vegetation, Alternative 3 completely avoids areas of high sensitivity and the core populations of SoCC, making it a botanically acceptable and environmentally responsible alternative. It is therefore considered equally preferred to Alternative 2 from a botanical perspective.

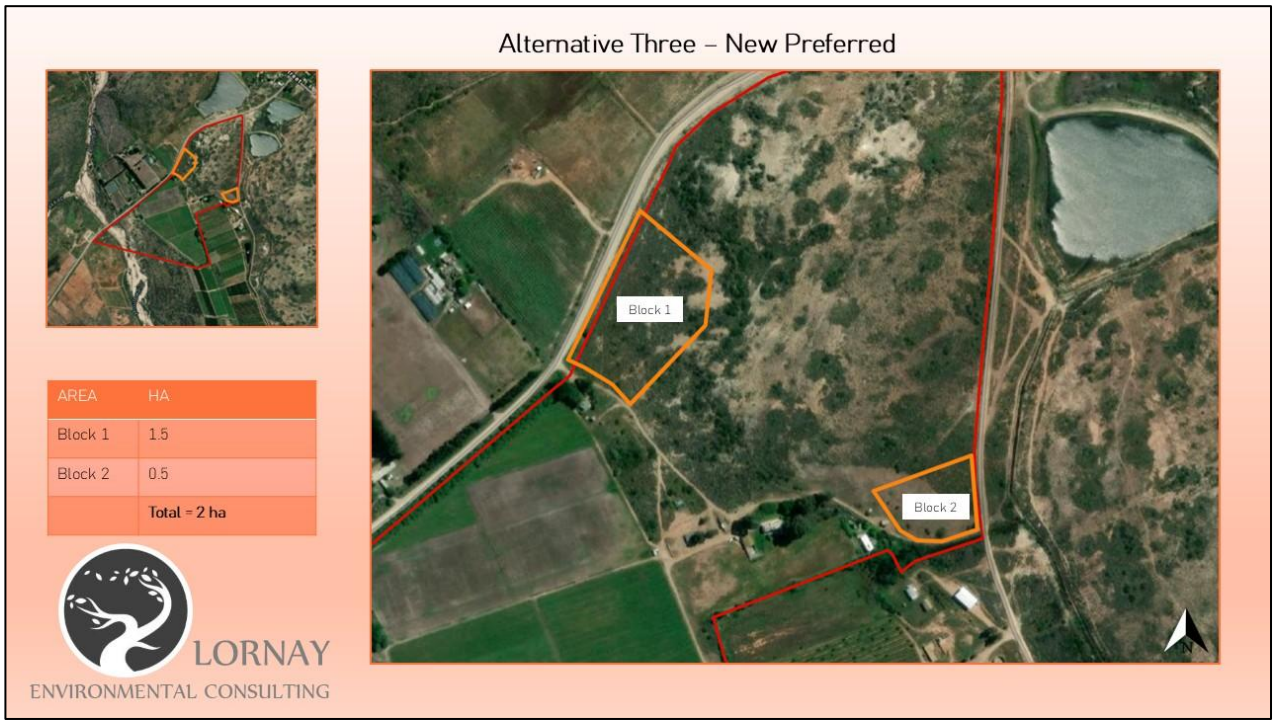


Figure 7: Proposed site layout plan - Alternative 3 (Preferred).

Provide a description of any other design or layout alternatives investigated.

In the planning phase of the proposed agricultural expansion, three layout alternatives were considered. Each option was assessed based on two principal criteria such as the agricultural suitability of the land particularly for the cultivation of olive groves and wine grapes as well as the botanical sensitivity of the site, as informed by specialist input and biodiversity planning tools. The botanical sensitivity map (**Figure 8**) highlights extensive areas of medium, medium-high and high sensitivity across the site, limiting the availability of ecologically appropriate and agriculturally viable development areas.

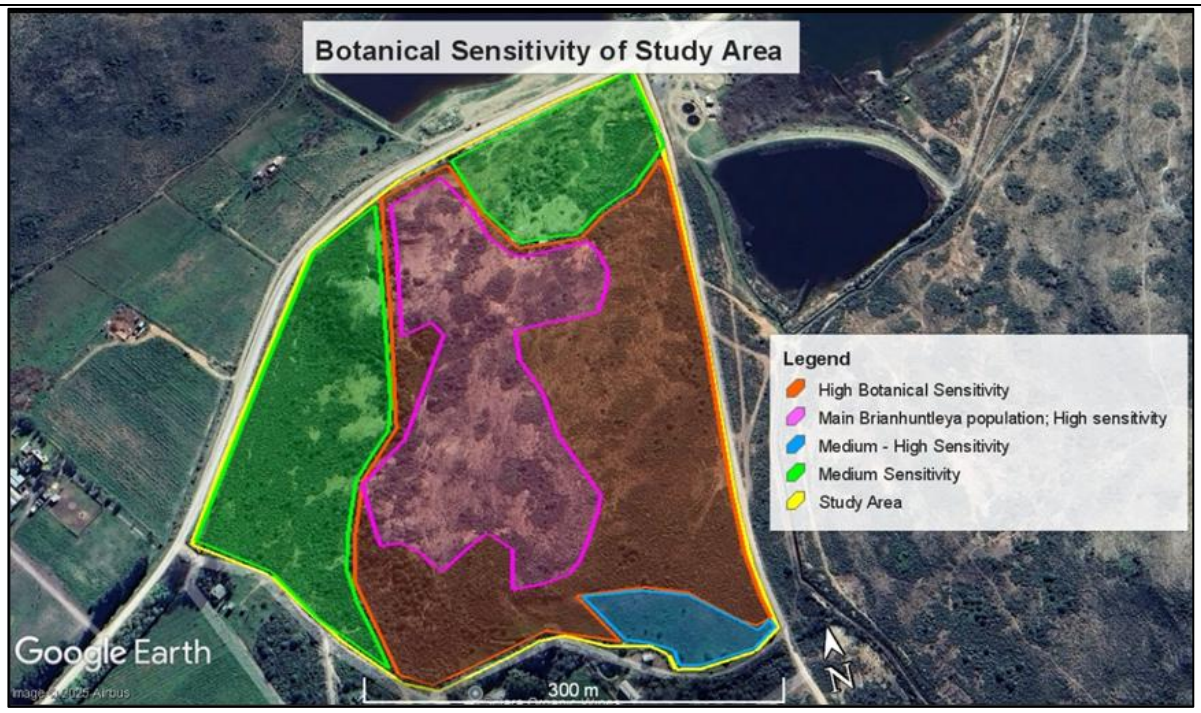


Figure 8: Botanical sensitivity map of the study area.

ALTERNATIVE LAYOUT 1

Alternative Layout 1 involves the establishment of two additional cultivation blocks for an olive grove and wine grapes situated adjacent to the current vineyards. This location was chosen based on the soil analysis, which identified suitable soil types required for optimal crop production. Soil conditions across the property vary, and the selected areas align with Department of Agriculture guidelines, which emphasise the importance of conserving arable soil for agriculture in South Africa. With pressures from climate change and the need for efficient use of arable land, this layout allows for responsible land use without compromising agricultural productivity.

The primary environmental concern related to this alternative involves the clearance of approximately 1.65 hectares of medium-sensitivity vegetation and 2.1 hectares of high-sensitivity vegetation during construction. Additionally, a botanical survey identified a potential impact on the *Brianhuntleya intrusa*, a plant species of conservation concern (SoCC) classified as Near Threatened. Less than 10% of the property's population of this species may be affected. However, mitigation measures, including the demarcation of the development footprint, and Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints of affected plants to less vulnerable areas on the property, have been recommended to offset this impact. It is worth noting that this vegetation type is classified as "Least Threatened" and is within the ESA1 classification, which reduces the overall conservation risk, though all efforts will be made to minimise the loss of plants SoCC.

This alternative option is also strategically close to the farm's existing irrigation systems. This proximity enables efficient water usage, reduces the need to develop new irrigation infrastructure, and minimises further soil disturbance. By connecting to established infrastructure, the layout helps streamline operational efficiency and environmental management. This layout alternative encroaches on high botanical sensitive area and will also contribute to loss of plant species of conservation concerns identified on site. Despite its agricultural suitability and operational advantages, the ecological risks associated with this layout contributed to the decision to seek more environmentally sensitive alternatives that entirely avoids impacts on SoCCs.

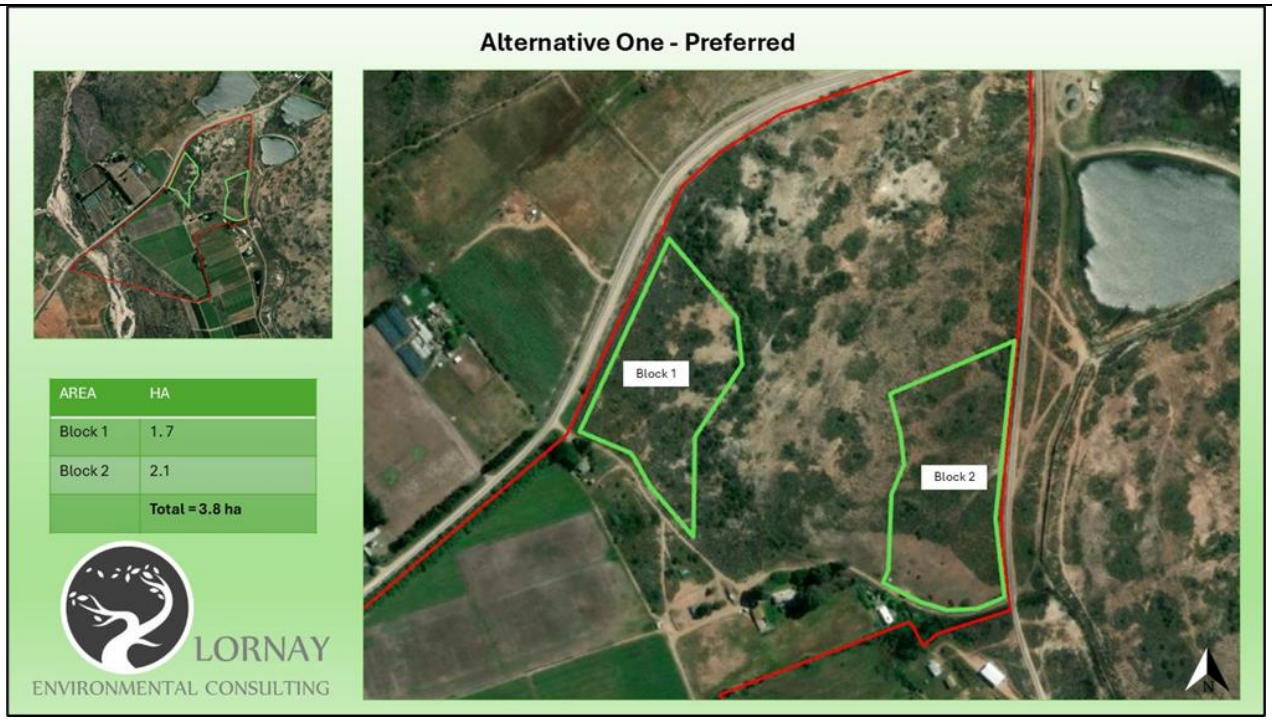


Figure 9: Proposed site layout plan Alternative 1 (preferred).

ALTERNATIVE 2

Alternative 2 was considered with the aim of relocating Block 2 to the northeast section of the property, an area with medium botanical sensitivity as per the botanical sensitivity map above. While this option was thoroughly assessed with input from a botanical specialist, it was ultimately not preferred due to several key factors that make it less viable compared to Alternative 3. A soil analysis conducted on site indicated that the areas situated on the east, west and southwest of the study area presents significant soils which are suitable for the proposed expansion, the soil types was also confirmed and documented by the botanical specialist. However, the northeastern area, where Alternative 2 is proposed is characterized by soil erosion occurrences and is largely inarable, which renders it unsuitable for agricultural purposes. Of crucial importance, the primary objective of this development is to find suitable arable land to expand the operations of the farm by adding new cultivation blocks, however, the northeast section (Alternative 2) does not meet the requirements for sustainable agricultural productivity. This would pose significant challenges for the proposed agricultural activities which require most suitable and arable soil conditions for the productivity of the farm. The area's soil composition is not suitable for sustainable farming, which is the core purpose of the development.

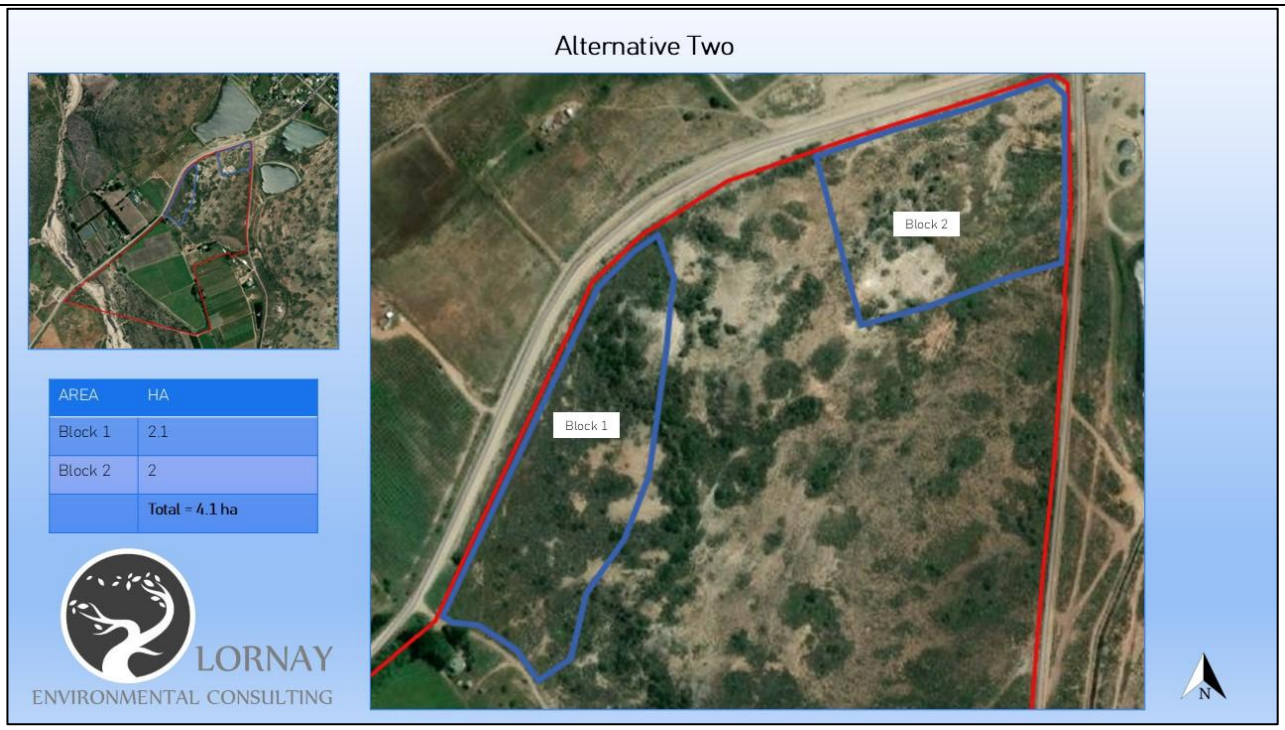


Figure 10: Alternative 2 design

NO-GO

The No-Go alternative involves retaining the current land use without implementing any additional cultivation blocks for olive groves or vineyards. Under this scenario, the site remains in its existing natural and semi-natural state, with no further transformation or infrastructure development associated with agricultural expansion.

This alternative would result in the lowest environmental impact, as no vegetation clearing or habitat disturbance would occur, particularly within areas identified as being of medium to high botanical sensitivity. Sensitive plant species, including *Brianhuntleya intrusa* and other flora of conservation concern, would remain undisturbed in their natural habitats. Furthermore, the integrity of the ecological corridors and ecosystem functioning within the ESA1 area would be fully maintained. However, this alternative does not support the farm's agricultural growth objectives. By foregoing the opportunity to expand cultivation, the farm may face limitations in production potential, economic development, and long-term sustainability. This could affect employment opportunities, local agricultural output, and the broader socio-economic benefits derived from increased cultivation of high-value crops such as olives and grapes.

Provide a motivation for the preferred design or layout alternative.

ALTERNATIVE 3 (PREFERRED)

The preferred layout alternative for the proposed expansion is Alternative 3. This option was selected after careful consideration of the ecological and agricultural aspects of the site, as well as the outcomes of public consultation and environmental assessments. Alternative 3 provides a balanced approach that aligns the agricultural objectives of the development with the need to preserve biodiversity and minimize ecological disruption.

One of the primary motivations for selecting Alternative 3 is its ability to optimize good soil conditions for the proposed cultivation blocks. The proposed cultivation blocks are located on areas with deeper soils, known for their enhanced moisture retention and nutrient availability. These soil properties are critical for the healthy growth of wine grapes and olive grove, ensuring long-term agricultural productivity of the farm and therefore reducing the utilisation of the inorganic

fertilizers. The scientifically validated soil advantages in these areas make Alternative 3 particularly suitable for the intended crops, thereby enhancing the potential for high-quality wine grape and olive production.

In addition to the agricultural benefits, Alternative 3 offers significant environmental advantages. The layout was specifically designed to avoid areas of high botanical sensitivity, as well as core habitats for plant Species of Conservation Concern (SCCs) such as *Brianhuntleya intrusa* and *Aspalathus lactea ssp. Breviloba*. By reducing the development footprint from 3.8 ha in Alternative 1 to just 2 ha, Alternative 3 avoids the loss of sensitive vegetation, specifically in high botanical sensitive zones identified on the study area and limits the fragmentation of valuable ecological habitats. This reduction reflects the applicant's commitment to sustainable land use and willingness to prevent extensive vegetation loss in areas which are most vulnerable.

Provide a detailed motivation if no design or layout alternatives exist.

N/A

List the positive and negative impacts that the design alternatives will have on the environment.

ALTERNATIVE 1

Positive Impacts

→ The areas highlighted for the development contain suitable arable land for vineyards, as determined by the soil analysis conducted on-site.

→ The vineyards will be located adjacent to the existing vineyards on the farm, further minimizing the need for additional pipelines and infrastructure, thus reducing environmental disturbance.

→ Job creation for local communities during both the construction and operational phases of the vineyard expansion, contributing to local economic development.

→ The expansion supports sustainable agricultural practices by optimizing the use of existing arable land, thereby reducing the pressure on undeveloped areas.

Negative Impacts

→ Loss of Medium and High sensitivity vegetation that is listed as Least Threatened, which could affect local biodiversity.

→ The clearance of vegetation could lead to soil erosion and habitat disruption, impacting the ecosystem services provided by the existing flora.

→ Potential disturbance to local wildlife during the construction phase, which may lead to temporary displacement of species.

ALTERNATIVE 2

Positive Impacts

→ By relocating Block 2 to the northeast of the property, this alternative could potentially avoid some areas of higher sensitivity vegetation, reducing the impact on those specific ecosystems.

→ If the site is identified as having suitable soil, it could still support agricultural productivity, contributing to the farm's overall yield.

Negative Impacts

- → The new location may still require the clearance of some vegetation, leading to loss of habitat and biodiversity, particularly if sensitive areas are disturbed.
- → Increased costs and logistical challenges related to establishing new irrigation and access infrastructure further away from existing systems, which could lead to greater soil disturbance.
- → Potential for reduced overall agricultural efficiency if the new area is not as suitable for vineyards as initially assessed.

ALTERNATIVE 3 (PREFERRED)

Positive Impacts

- → The areas highlighted for the development contain suitable arable land for the proposed cultivation blocks, as determined by the soil analysis conducted on-site.
- → The site development plan avoids encroachment on high botanical sensitive areas as well as areas with plant species of conservation concern, ensuring no loss of plant species of conservation concern.
- → The development footprint has been significantly reduced to 2 ha, minimizing overall environmental disturbance and maintaining ecological integrity across a larger portion of the site.
- → Potential still exists for limited job creation during implementation, with a lower environmental cost than other alternatives.

Negative Impacts

- → The reduced scale of the vineyard expansion may limit the farm's production capacity and economic viability, potentially impacting long-term sustainability.
- → Reduced opportunities for broader job creation compared to larger-scale alternatives, possibly affecting socioeconomic benefits to the local community.
- → Infrastructure adjustments, although minimal, may still cause localized vegetation disturbance and minor soil disruption during installation.

NO-GO

Positive Impacts

- → No vegetation clearance, soil disruption, or biodiversity loss.
- → Sensitive habitats and plant species remain undisturbed.
- → Full preservation of ecosystem services and biodiversity corridors.

Negative Impacts

- → No contribution to the farm's growth or agricultural productivity.
- → Missed opportunity for job creation and local economic development.
- → May reduce long-term sustainability of farming operations by limiting adaptability and diversification.

1.4.	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.
Provide a description of the preferred technology alternative:	
N/A	
Provide a description of any other technology alternatives investigated.	
N/A	
Provide a motivation for the preferred technology alternative.	
N/A	
Provide a detailed motivation if no alternatives exist.	
No technology alternatives were considered, this application pertains to the establishment of new additional cultivation blocks.	
List the positive and negative impacts that the technology alternatives will have on the environment.	
N/A	
~~1.5.~~	~~Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.~~
~~Provide a description of the preferred operational alternative.~~	
~~Provide a description of any other operational alternatives investigated.~~	
~~Provide a motivation for the preferred operational alternative.~~	
~~Provide a detailed motivation if no alternatives exist.~~	
~~List the positive and negative impacts that the operational alternatives will have on the environment.~~	
1.6.	The option of not implementing the activity (the 'No-Go' Option).
Provide an explanation as to why the 'No-Go' Option is not preferred.	
Choosing the 'No-Go' option, which entails maintaining the current state and decommissioning development, is not the preferred alternative in this scenario. This choice is less favourable because it prevents progress of the farm and potential opportunities for growth and improvement.	
1.7.	Provide and explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.
The proposed expansion has been carefully planned to consider both agricultural feasibility and environmental constraints. A thorough assessment of three design layout alternatives was undertaken, with each evaluated in terms of its potential environmental impacts, soil suitability, and operational efficiency. The northern portion of the property, although currently uncultivated, offers space for expansion, however, its use is limited by key factors such as topographical constraints, botanical sensitivity, and the variable suitability of soil across the site. These environmental and agricultural parameters significantly restrict the extent to which the layout can be altered without compromising either the productivity of the crops that will be planted or the ecological integrity of the site. In light of the above, the preferred Alternative 3 was selected because it offers a balanced approach that seeks to avoid high-sensitivity areas and mitigate unavoidable environmental impacts. This option minimises the development footprint to just 2 ha and avoids areas where plant species of conservation concern, such as *Brianhuntleya intrusa*, are known to	

occur. It also reduces the extent of the cultivation areas by minimizing the vegetation loss in the high botanical areas and therefore limiting soil disturbance and habitat fragmentation on site.

No other reasonable or feasible alternatives have been identified beyond those already assessed in this application. The surrounding land is either ecologically sensitive, agriculturally unsuitable, or constrained by slope and access, making further deviation from the proposed footprint impractical. As such, the selected layout represents the most environmentally responsible and operationally viable option available. It maximises positive impacts, including the creation of local employment opportunities and the responsible use of arable land, while reducing potential ecological harm to the lowest possible level.

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The preferred alternative for the proposed agricultural expansion is Alternative 3, which involves the establishment of two new cultivation blocks on the northern section of the property. This location is situated near existing vineyards and within close proximity to current operational infrastructure, making it the most practical and environmentally responsible option. The preferred alternative (Alternative 3) has reduced the development footprint from the previously preferred development footprint of 3.8 ha (Alternative 1) to now 2 ha development footprint (Alternative 3). The selection of Alternative 3 is primarily supported by several key considerations including a detailed soil analysis which confirmed that the targeted areas possess favourable soil morphology, which is essential for optimal grapevine growth and sustainable agricultural yield. Furthermore, both blocks are located on west-facing slopes, which are ideal for viticulture due to their enhanced exposure to afternoon sunlight, aiding in effective grape ripening. The topography of the selected sites is relatively gentle and even, providing suitable terrain for the operation of agricultural machinery and efficient management practices.

In contrast, other areas on the property are either steep, rocky, or located within drainage lines, rendering them unsuitable for cultivation due to erosion risk, poor soil conditions, and operational impracticalities. Alternative 2, while also considered, with relatively higher development footprint (4 ha), presents multiple constraints that make it less favourable. The proposed site in this option is situated on degraded land prone to erosion, with sandy and rocky soil that lacks agricultural viability (**Photo 1**). Moreover, its distance from existing infrastructure, undulating terrain, and location adjacent to the main road introduce additional risks such as crop theft and dust contamination, which could compromise the quality of production. On the other hand, Alternative 1 layout development footprint is higher than Alternative 3, and also includes vegetation loss on high botanical areas, including plant species of conservation concern mapped on the study area.

Photo 1: View of the upper northern section characterized by degraded land with a high susceptibility to erosion.

2. "No-Go" areas

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).
No no-go areas identified by the specialist.

3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

An impact is any change to a resource or receptor brought about by a project component or through the execution of a project related activity. The evaluation of baseline data provides information for the process of evaluating and describing how the project could affect the biophysical and socio-economic environment.

Impact is described according to their nature or type, as follows:

Nature/ Type

Nature/ Type of impact	Definition
Positive	An impact that is considered to represent an improvement on the baseline or introduces a positive change.

Negative	An impact that is considered to represent an adverse change from the baseline, or introduces a new undesirable factor.
Direct	Impacts that result from a direct interaction between a planned project activity and the receiving environment/receptors (e.g. between occupation of a site and the pre-existing habitats or between an effluent discharge and receiving water quality).
Indirect	Impacts that result from other activities that are encouraged to happen as a consequence of the Project (e.g. in-migration for employment placing a demand on resources).
Cumulative	Impacts that act together with other impacts (including those from concurrent or planned future third-party activities) to affect the same resources and/or receptors as the Project.

Significance

Impacts are described in terms of significance. Significance is a function of the magnitude of the impact and the likelihood of the impact occurring:

Impact Magnitude	
Extent	**On site** – impacts that are limited to the boundaries of the development site.
	Local – impacts that affect an area in a radius of 20 km around the Development site.
	Regional – impacts that affect regionally important environmental resources or are experienced at a regional scale as determined by administrative boundaries, habitat type/ecosystem.
	National – impacts that affect nationally important environmental resources or affect an area that is nationally important/ or have macro-economic consequences
Duration	**Temporary** – impacts are predicted to be of short duration and intermittent/occasional.
	Short-term – impacts that are predicted to last only for the duration of the construction period.
	Long-term – impacts that will continue for the life of the Project but ceases when the project stops operating
	Permanent – impacts that cause a permanent change in the affected receptor or resource (e.g. removal or destruction of ecological habitat) that endures substantially beyond the project lifetime
	BIOPHYSICAL ENVIRONMENT
	Negligible – the impact on the environment is not detectable.
	Low – the impact affects the environment in such a way that natural functions and processes are not affected.
	Medium – where the affected environment is altered but natural functions and processes continue, albeit in a modified way.
Intensity	**High** – where natural functions or processes are altered to the extent that they will temporarily or permanently cease
	SOCIO-ECONOMIC
	Negligible – there is no perceptible change to people's livelihood

	Low – people/communities are able to adapt with relative ease and maintain pre-impact livelihoods
	Medium – people/communities are able to adapt with some difficulty and maintain pre-impact livelihoods but only with a degree of support
	High – affected people/communities will not be able to adapt to changes or continue to maintain pre-impact livelihoods.

Likelihood- the likelihood that an impact will occur

Likelihood	
Unlikely	The impact is unlikely to occur
Likely	The impact is likely to occur under the most conditions.
Definite	The impact will occur

Once an assessment is made of the magnitude and the likelihood, the impact significance is rated through a matrix process:

Significance				
Magnitude		Unlikely	Likely	Definite
	Negligence	Negligible	Negligible	Minor
	Low	Negligible	Minor	Minor
	Medium	Minor	Moderate	Moderate
	High	Moderate	Major	Major

Definition of significance:

Negligible	An impact of negligible significance (or an insignificant impact) is where a resource or receptor (including people) will not be affected in any way by a particular activity, or the predicted effect is deemed to be 'negligible'.
Minor	An impact of minor significance is one where an effect will be experienced, but the impact magnitude is small (with and without mitigation) and within accepted standards, and/or the receptor is of low sensitivity/value.
Moderate	An impact of moderate significance is one within accepted limits and standards. The emphasis for moderate impacts is on demonstrating that the impact has been reduced to a level that is as low as reasonably practicable. This does not necessarily mean that 'moderate' impacts have to be reduced to 'minor' impacts, but that moderate impacts are managed effectively and efficiently.
Major	An impact of major significance is one where an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued / sensitive resource / receptors. A goal of the EIA process is to get to a position where the Project does not have any major residual impacts.

Significance of an impact is then qualified through a statement of the degree of confidence. Degree of confidence is expressed as low, medium or high.

Significance colour scale (if applicable):

Negative	Positive
Negligible	Negligible
Minor	Minor
Moderate	Moderate
Major	Major

Impact rating colour scale:

Negative	Positive
Negligible	Negligible
Low	Low
Medium	Medium
High	High

4. Assessment of each impact and risk identified for each alternative

Note: 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 may decide to include this section as Appendix J to this BAR.

ALTERNATIVE ONE

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Job creation during the planning, design and construction phase
Nature of impact:	Positive
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Improved livelihood for the community, investments in the area, influx of people in the area
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Access to employment opportunities for the local contractors'
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	N/A

Proposed mitigation:	- Ensure labour force is sourced locally as far as possible. A gender balance to be considered during employment
Residual impacts:	Improvement of the local economy, skill transfer and investment in the area.
Cumulative impact post mitigation:	Job creation and skill transfer for the local community
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High Positive**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Dust impact** Dust generated from the site clearing and site preparation phase is expected
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Visual impacts and nuisance for the residents adjacent to the site
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High
Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the area
Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving activities, vegetation removal and mixing required for construction and development.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear the entire property, rather clear the building site only, as far as possible. → Ensure vehicle speeds limits on site are kept to a minimum. → Delivery vehicles to keep loads covered. → Cover fine materials stockpiles → Wet dry and dusty surfaces using non-portable water. Staff to wear correct PPE if dust is generated for long periods. Road surfaces to be swept and kept clean of sand and fine materials.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Noise impact** Noise generated from the machinery moving during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Noise disturbance to the transient receptors, i.e. motorists, pedestrians and residents.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Medium negative
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Medium- High
Degree to which the impact can be managed:	Medium- High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Limit noise levels (e.g install and maintain silencers on machinery) → Provide protective wear for workers i.e. ear plugs → Ensure that construction vehicles and machinery are maintained to reduce noise generation. → Restrict construction to normal working hours in line with municipal bylaws
Residual impacts:	None
Cumulative impact post mitigation:	Typical noise impacts associated with construction site
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low negative**

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**4. Visual impacts** Visual impacts of construction site and construction activities
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Reduce aesthetic values of the site and surroundings
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Short term visual impacts associated with construction
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Medium

Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Good housekeeping of construction site and working areas. - Screen the visual elements of the site camp with netting. - Locate the site camps in a transformed area. - Site officer to walk the site on a daily basis to check for visual impacts and general site aesthetics, particularly prior the weekends and holidays.
Residual impacts:	None
Cumulative impact post mitigation:	Typical visual impacts associated with a construction site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low Negative**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**5. Botanical impacts** Permanent loss of natural and partly natural vegetation as a result of clearing.
Nature of impact:	Negative
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	High- loss of natural vegetation plus loss of portion of local sub-population of at least one plant Species of Conservation Concern
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Loss of medium and highly sensitive vegetation and habitat fragmentation
Cumulative impact prior to mitigation:	Loss of ecological connectivity
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs. → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future. → Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints must be undertaken prior to any site development. In addition for Alternative 1 all specimens of the Near Threatened vygie *Brianhuntleya intrusa*, the dwarf succulent *Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in

	southern part of Block 2) within the authorised footprint must be rescued (none of these is in the Alternative 2 footprint). This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site (if not developed), and the remainder can be used elsewhere (at contractor and botanist's discretion).
Residual impacts:	Continued loss of vegetation contributing to habitat loss.
Cumulative impact post mitigation:	Low-Medium – the vegetation type impacted by the development has been, and will continue to be, impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Medium (-)**
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Access to employment opportunities for the community during the operational phase, job creation, provision of housing for new residents moving into the area and investment opportunities, additional housing provided in response to need and demand
Nature of impact:	Positive
Extent and duration of impact:	Local; Long term
Consequence of impact or risk:	Improved livelihood, beneficiaries
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Access to employment for the community during the operational phase, job creation, provision of residential erven in response to provincial demand, investment in the area.
Cumulative impact prior to mitigation:	High Positive
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	→ Labour must be sourced locally
Residual impacts:	Investment in the area and attraction to the area.
Cumulative impact post mitigation:	→ Investment in the area, attraction to the area. → Access to employment opportunities for the community during the operational phase, job creation, provision of housing in response to the provincial demand and investment in the area.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High (+)**

POST-CONSTRUCTION PHASE		
Potential impact and risk:	**2. Botanical impacts** Increased habitat fragmentation and loss of current levels of terrestrial ecological connectivity across the cultivated parts of the currently natural study area.	
Nature of impact:	Negative	
Extent and duration of impact:	Local; Permanent	
Consequence of impact or risk:		
Probability of occurrence:	Very likely	
Degree to which the impact may cause irreplaceable loss of resources:	High	
Degree to which the impact can be reversed:	Low- There is currently cultivation to the west, north and south of the site, so ecological connectivity in the study area has already been compromised and restricted	
Indirect impacts:	Increase fragmentation and loss of ecological connectivity	
Cumulative impact prior to mitigation:	The vegetation type impacted by the development has been, and will continue to be, impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High	
Degree to which the impact can be avoided:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:	→ The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs. → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future. → Search and Rescue of all translocatable bulbs and succulents from within the development footprints must be undertaken prior to any site development. All specimens of the NT vygie *Brianhuntleya intrusa* and the dwarf succulent *Tulista pumila* within the authorised footprint must be rescued. This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site, and the remainder can be used elsewhere (at contractor and botanist's discretion).	
Residual impacts:	Medium – continued loss of plant species of conservation concern and vegetation on high botanical sensitive area.	
Cumulative impact post mitigation:	The vegetation type impacted by the development has been, and will continue to be, impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**Medium (-)**

DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	N/A
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)	-

ALTERNATIVE 2

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Job creation during the planning, design and construction phase
Nature of impact:	Positive
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Improved livelihood for the community, investments in the area, influx of people in the area
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Access to employment opportunities for the local contractors'
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	N/A

Proposed mitigation:	- Ensure labour force is sourced locally as far as possible - A gender balance to be considered during employment
Residual impacts:	Improvement of the local economy, skill transfer and investment in the area.
Cumulative impact post mitigation:	Job creation and skill transfer for the local community
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High Positive**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Dust impact** Dust generated from the site clearing and site preparation phase is expected
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Visual impacts and nuisance for the residents adjacent to the site
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High
Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the area
Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving activities, vegetation removal and mixing required for construction and development.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear the entire property, rather clear the building site only, as far as possible. → Ensure vehicle speeds limits on site are kept to a minimum. → Delivery vehicles to keep loads covered. → Cover fine materials stockpiles → Wet dry and dusty surfaces using non-portable water. Staff to wear correct PPE if dust is generated for long periods.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Noise impact** Noise generated from the vehicles and machinery moving during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Noise disturbance to the transient receptors, i.e. motorists, pedestrians and residents.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Medium negative
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Medium- High
Degree to which the impact can be managed:	Medium- High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Limit noise levels (e.g install and maintain silencers on machinery) → Provide protective wear for workers i.e. ear plugs → Ensure that construction vehicles and machinery are maintained to reduce noise generation. → Restrict construction to normal working hours in line with municipal bylaws
Residual impacts:	None
Cumulative impact post mitigation:	Typical noise impacts associated with construction site
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low negative**

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**4. Visual impacts** Visual impacts of construction site and construction activities
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Reduce aesthetic values of the site and surroundings
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Short term visual impacts associated with construction
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Medium

Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Good housekeeping of construction site and working areas. - Screen the visual elements of the site camp with netting. - Locate the site camps in a transformed area. - Site officer to walk the site on a daily basis to check for visual impacts and general site aesthetics, particularly prior the weekends and holidays.
Residual impacts:	None
Cumulative impact post mitigation:	Typical visual impacts associated with a construction site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low Negative**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**5. Botanical impacts** Permanent loss of natural and partly natural vegetation as a result of clearing.
Nature of impact:	Negative
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	High- loss of natural vegetation plus loss of portion of local sub-population of at least one plant Species of Conservation Concern
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Loss of medium and highly sensitive vegetation and habitat fragmentation
Cumulative impact prior to mitigation:	Loss of ecological connectivity
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs. → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future. → Search and Rescue of all translocatable bulbs and succulents from within the development footprints must be undertaken prior to any site development. All specimens of the NT vygie Brianhuntleya intrusa and the dwarf succulent Tulista pumila within the authorised footprint must be rescued. This must be undertaken by a qualified Search and Rescue contractor approved by

	the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site, and the remainder can be used elsewhere (at contractor and botanist's discretion).	
Residual impacts:	Continued loss of vegetation contributing to habitat loss.	
Cumulative impact post mitigation:	Continued loss of this vegetation type	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**Medium (-)**
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**1. Socioeconomic impacts** Access to employment opportunities for the community during the operational phase, job creation, provision of housing for new residents moving into the area and investment opportunities, additional housing provided in response to need and demand	
Nature of impact:	Positive	
Extent and duration of impact:	Local; Long term	
Consequence of impact or risk:	Improved livelihood, beneficiaries	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	N/A	
Degree to which the impact can be reversed:	N/A	
Indirect impacts:	Access to employment for the community during the operational phase, job creation, provision of residential erven in response to provincial demand, investment in the area.	
Cumulative impact prior to mitigation:	High Positive	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A	
Degree to which the impact can be avoided:	N/A	
Degree to which the impact can be managed:	N/A	
Degree to which the impact can be mitigated:	N/A	
Proposed mitigation:	→ Labour must be sourced locally	
Residual impacts:	Investment in the area and attraction to the area.	
Cumulative impact post mitigation:	→ Investment in the area, attraction to the area. → Access to employment opportunities for the community during the operational phase, job creation, provision of housing in response to the provincial demand and investment in the area	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High (+)**	
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**2. Botanical impacts** Increased habitat fragmentation and loss of current levels of terrestrial ecological connectivity across the cultivated parts of the currently natural study area.	
Nature of impact:	Negative	

Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	Loss of connectivity that is already been compromised and restricted in the region.
Probability of occurrence:	Very likely
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Low- There is currently cultivation to the west, north and south of the site, so ecological connectivity in the study area has already been compromised and restricted.
Indirect impacts:	
Cumulative impact prior to mitigation:	Low- the vegetation type is impacted by agricultural development and other factors within the region.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs. → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future. → Search and Rescue of all translocatable bulbs and succulents from within the development footprints must be undertaken prior to any site development. All specimens of the NT vygie *Brianhuntleya intrusa* and the dwarf succulent *Tulista pumila* within the authorised footprint must be rescued. This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site, and the remainder can be used elsewhere (at contractor and botanist's discretion).
Residual impacts:	Continued loss of ecological connectivity that is already been compromised and restricted by agricultural activities as well as other uses in the region.
Cumulative impact post mitigation:	The vegetation type will continue to be impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	N/A
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)	-

ALTERNATIVE 3 (PREFERRED)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Job creation during the planning, design and construction phase
Nature of impact:	Positive
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Improved livelihood for the community, investments in the area, influx of people in the area
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Access to employment opportunities for the local contractors'
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	- Ensure labour force is sourced locally as far as possible. A gender balance to be considered during employment
Residual impacts:	Improvement of the local economy, skill transfer and investment in the area.
Cumulative impact post mitigation:	Job creation and skill transfer for the local community
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High Positive**

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Dust impact** Dust generated from the site clearing and site preparation phase is expected
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Visual impacts and nuisance for the residents adjacent to the site
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High
Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the area
Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving activities, vegetation removal and mixing required for construction and development.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear the entire property, rather clear the building site only, as far as possible. → Ensure vehicle speeds limits on site are kept to a minimum. → Delivery vehicles to keep loads covered. → Cover fine materials stockpiles → Wet dry and dusty surfaces using non-portable water. Staff to wear correct PPE if dust is generated for long periods. Road surfaces to be swept and kept clean of sand and fine materials.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Noise impact** Noise generated from the machinery moving during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Noise disturbance to the transient receptors, i.e. motorists, pedestrians and residents.
Probability of occurrence:	Likely

Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Medium negative
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Medium- High
Degree to which the impact can be managed:	Medium- High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Limit noise levels (e.g install and maintain silencers on machinery) → Provide protective wear for workers i.e. ear plugs → Ensure that construction vehicles and machinery are maintained to reduce noise generation. → Restrict construction to normal working hours in line with municipal bylaws
Residual impacts:	None
Cumulative impact post mitigation:	Typical noise impacts associated with construction site
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low negative**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**4. Visual impacts** Visual impacts of construction site and construction activities
Nature of impact:	Negative
Extent and duration of impact:	Local; Short-term
Consequence of impact or risk:	Reduce aesthetic values of the site and surroundings
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Short term visual impacts associated with construction
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	- Good housekeeping of construction site and working areas. - Screen the visual elements of the site camp with netting. - Locate the site camps in a transformed area. - Site officer to walk the site on a daily basis to check for visual impacts and general site aesthetics, particularly prior the weekends and holidays.
Residual impacts:	None

Cumulative impact post mitigation:	Typical visual impacts associated with a construction site.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Very-Low Negative**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**5. Botanical impacts** Permanent loss of natural and partly natural vegetation on the development footprint during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	High- loss of natural vegetation plus loss of portion of local sub-population of at least one plant Species of Conservation Concern
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Loss of medium and highly sensitive vegetation and habitat fragmentation
Cumulative impact prior to mitigation:	Loss of ecological connectivity
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs. → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future. → Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints must be undertaken prior to any site development. In addition for Alternative 1 all specimens of the Near Threatened vygie *Brianhuntleya intrusa*, the dwarf succulent *Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in southern part of Block 2) within the authorised footprint must be rescued (none of these is in the Alternative 2 footprint). This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site (if not developed), and the remainder can be used elsewhere (at contractor and botanist's discretion).
Residual impacts:	Continued loss of vegetation contributing to habitat loss.

Cumulative impact post mitigation:	Low-Medium – the vegetation type impacted by the development has been, and will continue to be, impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**Medium (-)**
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**3. Socioeconomic impacts** Access to employment opportunities for the community during the operational phase, job creation, provision of housing for new residents moving into the area and investment opportunities, additional housing provided in response to need and demand	
Nature of impact:	Positive	
Extent and duration of impact:	Local; Long term	
Consequence of impact or risk:	Improved livelihood, beneficiaries	
Probability of occurrence:	Definite	
Degree to which the impact may cause irreplaceable loss of resources:	N/A	
Degree to which the impact can be reversed:	N/A	
Indirect impacts:	Access to employment for the community during the operational phase, job creation, provision of residential erven in response to provincial demand, investment in the area.	
Cumulative impact prior to mitigation:	High Positive	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A	
Degree to which the impact can be avoided:	N/A	
Degree to which the impact can be managed:	N/A	
Degree to which the impact can be mitigated:	N/A	
Proposed mitigation:	→ Labour must be sourced locally	
Residual impacts:	Investment in the area and attraction to the area.	
Cumulative impact post mitigation:	→ Investment in the area, attraction to the area. → Access to employment opportunities for the community during the operational phase, job creation, provision of housing in response to the provincial demand and investment in the area.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High (+)**	
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**4. Botanical impacts** Increased habitat fragmentation and loss of current levels of terrestrial ecological connectivity across the cultivated parts of the currently natural study area.	
Nature of impact:	Negative	
Extent and duration of impact:	Local; Permanent	
Consequence of impact or risk:		

Probability of occurrence:	Very likely	
Degree to which the impact may cause irreplaceable loss of resources:	High	
Degree to which the impact can be reversed:	Low- There is currently cultivation to the west, north and south of the site, so ecological connectivity in the study area has already been compromised and restricted	
Indirect impacts:	Increase fragmentation and loss of ecological connectivity	
Cumulative impact prior to mitigation:	The vegetation type impacted by the development has been, and will continue to be, impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High	
Degree to which the impact can be avoided:	Medium	
Degree to which the impact can be managed:	Medium	
Degree to which the impact can be mitigated:	Medium	
Proposed mitigation:	→ The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs. → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future. → Search and Rescue of all translocatable bulbs and succulents from within the development footprints must be undertaken prior to any site development. All specimens of the NT vygie *Brianhuntleya intrusa* and the dwarf succulent *Tulista pumila* within the authorised footprint must be rescued. This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site, and the remainder can be used elsewhere (at contractor and botanist's discretion).	
Residual impacts:	Low-Medium – continued loss of indigenous vegetation on development footprint.	
Cumulative impact post mitigation:	Low-Medium – The vegetation type impacted by the development has been, and will continue to be, impacted by numerous agricultural developments and other factors (the cumulative impacts) within the region	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	**Medium (-)**
DECOMMISSIONING AND CLOSURE PHASE		
Potential impact and risk:	N/A	
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)	-

NO-GO

This alternative excludes development, the status quo remains.

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**1. Botanical impacts** No development taking place; therefore status quo remains.
Nature of impact:	Positive
Extent and duration of impact:	Local; as long as the site is not disturbed
Consequence of impact or risk:	N/A
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Loss of medium and highly sensitive vegetation and habitat fragmentation
Cumulative impact prior to mitigation:	N/A
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
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)	**High (+)**
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact	**2. Socioeconomic** No development is proposed and the status quo remains. No job opportunities envisaged.
Nature of impact:	Negative

Extent and duration of impact:	Local
Consequence of impact or risk:	N/A
Probability of occurrence:	N/A
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)	**High (-)**
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** No job creation, provision of housing for new residents moving into the area and investment opportunities, additional housing provided in response to need and demand
Nature of impact:	Negative
Extent and duration of impact:	Local;
Consequence of impact or risk:	N/A
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	No employment for the community during the operational phase, job creation, provision of residential erven in response to provincial demand, investment in the area.
Cumulative impact prior to mitigation:	High Negative
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	→ Labour must be sourced locally
Residual impacts:	Investment in the area and attraction to the area.
Cumulative impact post mitigation:	→ Investment in the area, attraction to the area. → Access to employment opportunities for the community during the operational phase, job creation, provision of housing in response to the provincial demand and investment in the area
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High (-)**

POST-CONSTRUCTION PHASE	
Potential impact and risk:	**2. Botanical impacts** No projected botanical impact and no loss of indigenous vegetation. Status quo remains.
Nature of impact:	Positive
Extent and duration of impact:	Local; as long as there is no development taking place.
Consequence of impact or risk:	Loss of connectivity might persist due to erosion patterns taking place up the valley
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	High
Degree to which the impact can be reversed:	Low
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	The vegetation type is impacted by agricultural development and other factors within the region.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High Positive
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Residual impacts:	N/A
Cumulative impact post mitigation:	N/A
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High (+)**
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	N/A
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)	-

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

Summary of the findings:

- → The study area consists primarily of Robertson Karoo vegetation, classified as a Least Threatened ecosystem type.
- → Soils range from deep loamy clays to shallow loamy clays with exposed shale, ledges, and cliffs. Deeper soils are found in the western, eastern, and southeastern parts, while the central area has thin soils with exposed rock.
- → No vegetation indicative of seasonal drainage lines or wetlands was observed within the study area.
- → The southeastern corner has been brush-cut over an area of approximately 0.5 ha, and the northeastern corner shows signs of historical quarrying activity that ceased over two decades ago.
- → There are no mapped terrestrial or aquatic Critical Biodiversity Areas (CBAs) within the study area.
- → Most of the study area is mapped as Ecological Support Areas (ESAs),
- → At least two plant Species of Conservation Concern were recorded in the study area, but only one of these SoCC (*Brianhuntleya intrusa*) is likely to lose about 10% of its site population to the proposed development (in Block 2 of Alternative 1), with the other SoCC not likely to be impacted.
- → About 63% (10 ha) of the study area is classified as having High botanical sensitivity. The remaining areas, comprising deeper soils in the western section and historically disturbed areas in the north, are classified as Medium botanical sensitivity.
- → Alternatives 2 and 3 are not likely to impact on any plant SoCC, but Alternative 1 is likely to result in loss of about 10% of the site population of the Near Threatened vygie *Brianhuntleya intrusa* (in Block 2 of Alternative 1).
- → Alternative 2 avoided areas of high sensitivity but was found to be agronomically unviable due to shallow soils in the northeastern portion of the site.
- → The refined Alternative 3 emerged as the preferred layout, with a lower construction phase botanical impact than the applicants previously preferred Alternative 1, and similar to that of Alternative 2.

Impact management measures

- → The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the other areas occur.
- → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity as well as areas outside the proposed development footprints at any stage in the future.
- → Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints must be undertaken prior to any site development. In addition, for Alternative 1 & 3, any specimens of the Near Threatened vygie *Brianhuntleya intrusa* (absent from Alt 3 footprint), the dwarf *succulent Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in southern part of Block 2) within the authorised footprint must be rescued (none of these is in the Alternative 2 footprint). This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site (if not developed), and the remainder can be used elsewhere (at contractor and botanist's discretion).

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr

Botanical Assessment

- → The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs.

- → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas as well as areas outside the proposed development footprints at any stage in the future.
- → Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints must be undertaken prior to any site development. In addition, for Alternative 1 & 3, any specimens of the Near Threatened vygie *Brianhuntleya intrusa* (absent from Alt 3 footprint), the dwarf succulent *Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in southern part of Block 2) within the authorised footprint must be rescued (none of these is in the Alternative 2 footprint). This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site (if not developed), and the remainder can be used elsewhere (at contractor and botanist's discretion).
- → It is recommended (not a requirement) that the applicant make a significant donation (>20% of the total development costs of the proposed cultivation and vineyard expansion) to the nearby Vrolikheid Nature Reserve (managed by CapeNature, and conserving a similar vegetation type, but with the usual budget constraints) in order to help mitigate the residual botanical impacts of the development, and this funding should be used for management on or off the Reserve, or for Reserve expansion.

3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

As part of the botanical assessment undertaken by Nick Helme Botanical Surveys, specific impact management measures were proposed in response to the significant botanical impacts associated with the previously preferred Alternative 1. This layout would have encroached upon areas mapped as High botanical sensitivity and resulted in the loss of approximately 10% of the local population of the Near Threatened *Brianhuntleya intrusa*. In light of this, the specialist recommended an optional offset measure to mitigate the residual botanical impact, in which he stated "*It is recommended (not a requirement) that the applicant make a significant donation (>20% of the total development costs of the proposed cultivation and vineyard expansion) to the nearby Vrolikheid Nature Reserve (managed by CapeNature, and conserving a similar vegetation type, but with the usual budget constraints) in order to help mitigate the residual botanical impacts of the development, and this funding should be used for management on or off the Reserve, or for Reserve expansion*."

This recommended measure was considered in the context of Alternative 1, which would have resulted in substantial unavoidable impact on plant Species of Conservation Concern and their habitat. Given this substantial reduction in impact and the absence of residual significant botanical loss, the optional offset donation to Vrolikheid Nature Reserve will not be implemented. This decision is justified on the basis that Alternative 3 avoids the loss of plants species of conservation concern that necessitated the offset in the first place. All other specialist-recommended mitigation measures, including the Search and Rescue of translocatable plant species, and strict development footprint demarcation, remain in effect and will be fully implemented, as required.

4.	Explain how the proposed development will impact the surrounding communities.

- → The development of additional vineyards will create more jobs, especially for unskilled labour, benefiting local communities. Vineyard expansion often requires a larger workforce for planting, maintenance, harvesting, and other agricultural tasks. This can lead to a boost in employment, potentially reducing local unemployment rates and helping improve the economic stability of nearby communities.

- → The vineyard expansion will indirectly stimulate the local economy. With more workers employed, there will likely be an increase in spending at local businesses, contributing to economic growth in McGregor and surrounding areas. Additionally, local service providers, like suppliers of agricultural materials and equipment, could see increased demand.

- → As the property is within a well-established agricultural area, this expansion aligns with existing land use, minimising the potential for land-use conflicts. By intensifying agricultural use rather than converting new land, the project supports sustainable land-use practices, allowing the community to benefit from an expanded agricultural base without disrupting non-agricultural areas.

→ The development could lead to increased investment in local infrastructure, like roads and utilities, which would benefit the broader community. As vineyard operations grow, they might collaborate on or invest in local improvements, including housing or transportation, which can enhance the quality of life for residents.

→ While positive impacts are expected, there could be environmental impacts related to water use, pesticide application, and soil management. However, if the project follows sustainable vineyard practices, such as efficient water management, eco-friendly pest control, and soil conservation techniques, it can minimize these potential negative impacts.

5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

N/A

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

None that the EAP is aware of.

7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

The findings and recommendations from the botanical specialist study have played a central role in guiding the layout and design of the proposed development, ensuring that ecological sensitivity is addressed and managed through a suite of integrated mitigation measures. The botanical assessment, conducted by Nick Helme Botanical Surveys, identified significant botanical constraints on the site, including the presence of two Species of Conservation Concern (SoCC) *Brianhuntleya intrusa* (Near Threatened), *Aspalathus lactea ssp. Breviloba* (Vulnerable) and unnamed purple plant as well as a high degree of botanical sensitivity across approximately 63% of the site. These findings directly influenced the evolution of the development alternatives.

Initially, Alternative 1 posed a high risk of impacting both SoCC and High sensitivity areas. This led to the proposal and evaluation of Alternative 2, which avoided these areas but was found to be agriculturally unfeasible due to shallow soils and prior disturbance. Based on both ecological and agronomic findings, Alternative 3 was developed as a balanced solution that minimised ecological impacts while ensuring operational feasibility.

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

The principles of determining the Impact Significant, the management actions and the mitgation hieracy were applied to the assessment of the best practical option for the proposed development, as follows:

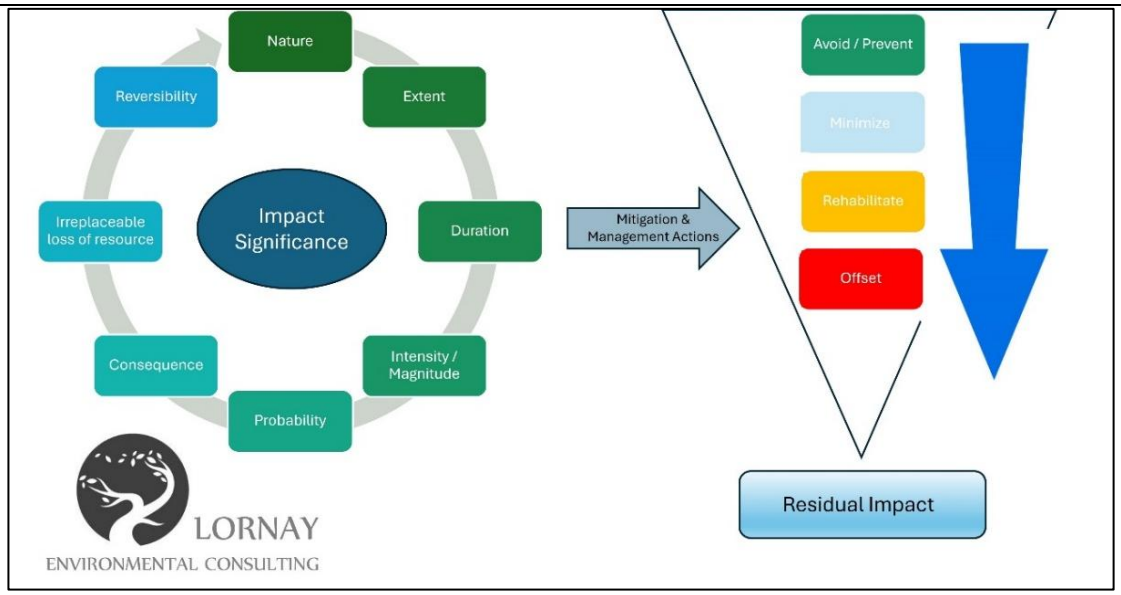
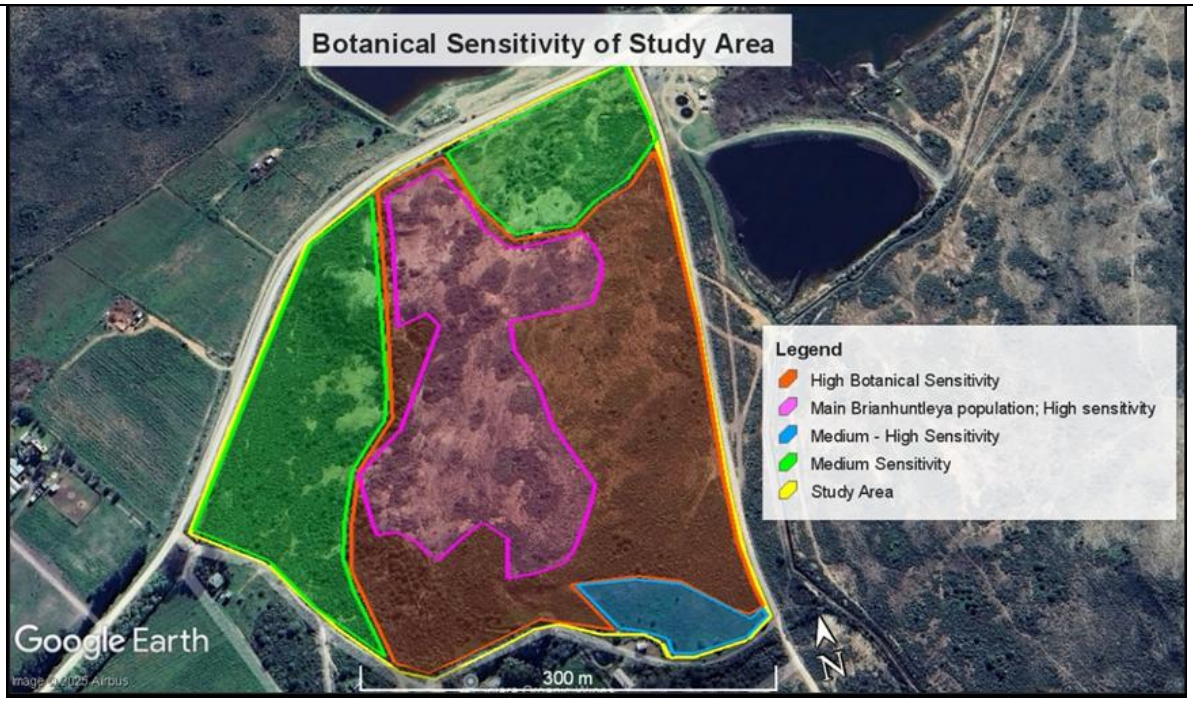


Figure 11: Mitigation hierarchy

A variety of factors have been used to inform the evolution of the alternatives on the site and the determination of the preferred alternative. Given the proposed development actions described herein, there are not only specific environmental factors and sensitivities which must be considered but also implementation factors to ensure that the proposed development can be viable and implementable. Factors such as soil characteristic play an important role in the quality of grapes and subsequent wine and are critical to ensuring success of the activity. In addition, factors such as dust and theft, also affect siting considerations on the property. Topography is also important as the slope of the land cannot be too undulating or too steep. Easy access to existing infrastructure on the farm as well as existing internal access roads are also important and prevent the need to extend services and roads to far reaching corners of the property. From a Biophysical point of view, the botanist assessed the available, vacant land and made recommendations relative to site sensitivities. All the above have been taken into consideration when assessing the alternatives.

Avoidance

At the outset of the planning process, efforts were made to avoid any unnecessary environmental and biophysical impacts, areas as far as practically possible. The proposed expansion is confined to the northern section of the property, as this is the only available vacant area on the farm. Further revisions of the actual placement of the two blocks have been done in conjunction with both physical, practical and biophysical factors. These include, vacant available land, topography, access and infrastructure, security, soil profiles, topography and biophysical status. The Terrestrial Biodiversity specialist mapped the northern section of the farm into three zones as follows:



Alternative 2 and Alternative 3 (preferred) avoids the main *Brianhuntleya* (SoCC) population completely and therefore completely avoid impacting a species of Conservation Concern on the study area. However, due to the practical and physical factors listed above, Alternative 1 does not result to avoidance of the impact and therefore extend onto an area mapped as high botanical sensitivity, which will also contribute to loss of less than 10% of the identified plant species of conservation concern. In addition, the development footprint of block 2 under Alternative 3 (preferred) is situated in medium-high sensitive area, indicated in the blue above, and has been previously disturbed, as per the site **Photo 2-3**. This ensures that the development footprint avoids the population of plants species of conservation concern identified on site.

Photo 2: Previously disturbed area located on the southeastern section of the study area.

Photo 3: Overview of the area mapped as medium-high sensitive proposed for block 2.

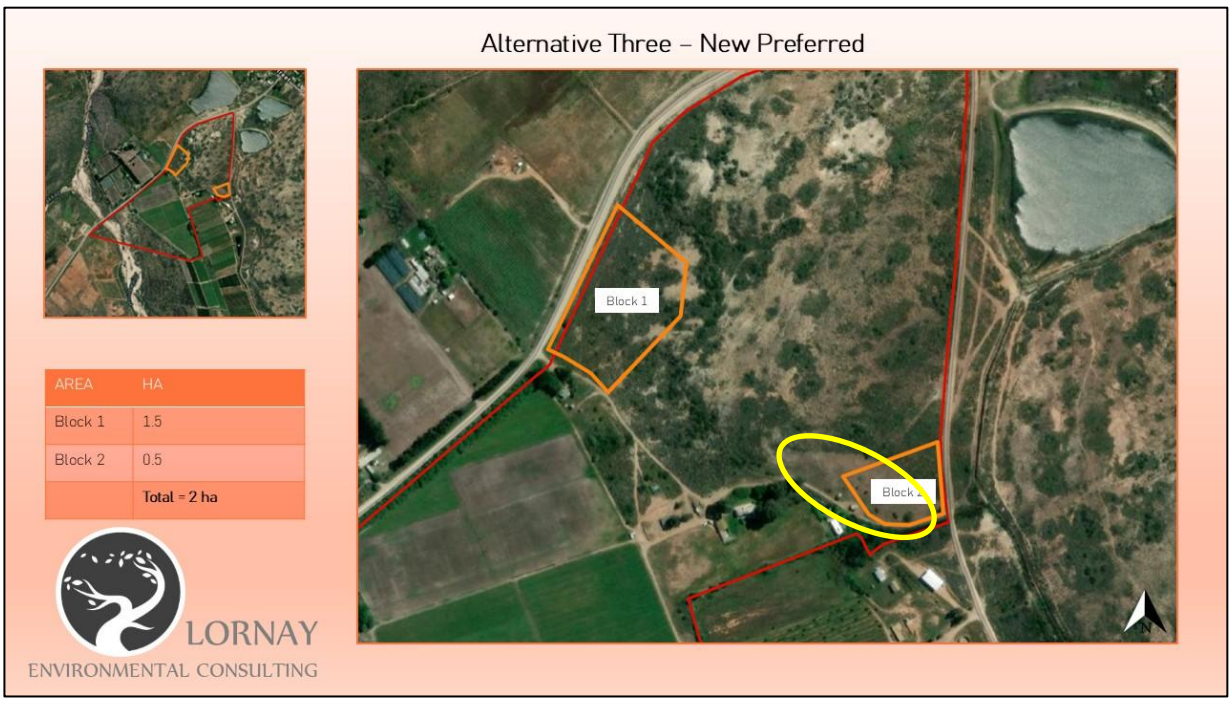


Figure 12: Aerial photo above with yellow circle in block 2 showing previously disturbed habitat included as Alternative 3 – Preferred.

Minimisation

Where impacts could not be fully avoided, efforts were made to minimise any negative effects through careful planning and management strategies. The proposed development area is limited to two cultivation blocks contributing to reduction in footprint which less than that of the previously preferred alternative ensuring that land disturbance is kept to a minimum, whereas Alternative 1 (3.8 ha) and Alternative 2 reaches a higher (4 ha) development footprint. Alternative 3

proposed development footprint reduces the overall footprint of the development (2 ha), preserving the surrounding natural environment, while maximising agricultural potential in agriculturally viable land. This development footprint ensures that the vegetation loss is reduced and limited to medium and medium-high botanical sensitive areas mapped in the study area.

Rehabilitation/ Restoration

In cases where impacts are unavoidable or have already occurred, the next step in the mitigation hierarchy is rehabilitation **or** restoration of affected areas. Although the vineyard expansion aims to limit disturbance to undisturbed areas, where disturbances are inevitable, rehabilitation measures will be implemented. The areas proposed for the 2 vineyard blocks will be clearly demarcated to prevent the spread to other areas. In addition, a search and rescue are required prior to development. Search and Rescue of all translocatable bulbs and succulents from within the development footprints will be undertaken prior to any site development. All specimens of the NT vygie *Brianhuntleya intrusa,* the dwarf succulent *Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in southern part of Block 2)within the authorised footprint will be rescued. This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site, and the remainder can be used elsewhere (at contractor and botanist's discretion). All these rescued plants will be translocated to the disturbed, rocky area situated in the northeastern section (identified for Alternative 2) in order to provide rehabilitation which will also restore the area's landscape.

Offset

Offset in terms of the Biodiversity Offset Regulations is not applicable as the vegetation is least threatened even though the Residual Impact is still medium. The population of SoCC are avoided under Alternative 3 and the scale of the development is low (2 ha) with an agriculturally viable landscape. However the Terrestrial specialist has recommended that the applicant make a donation to the nearby Vrolikheid Nature Reserve (managed by CapeNature and conserving a similar vegetation type) in order to help mitigate the botanical impacts of the development, and this funding should be used for management on or off the Reserve, or for Reserve expansion. Since this recommendation is not tied to any specific criteria or legislation, the mechanism for this is not clear.

Further to Cape Natures comment on the Draft BAR, it is agreed that Offsets are **not applicable** in terms of the National Biodiversity Offset Guidelines (the guidelines) as the vegetation is classified as least concern. In this regard, there are two methods of calculating the required offset ratios in accordance with the guidelines namely the threat status of the vegetation type and a combination of the remaining extent and protection level of the vegetation. The highest ratio for the two options should be selected. The look-up table in the appendix to the guidelines provides the basic offset ratios using this methodology for which Robertson Karoo is 0 for both. Criteria for adjustment of the ratio include the presence of CBAs, which are not present within the proposed cultivation areas. In terms of the basic ratio, it is concluded that a BO is not applicable.

Given the above, no further Biodiversity Offset process will be followed for the proposal. The new preferred alternative (Alternative 3) avoids the loss of plant species of conservation concern and the impact rating has been reduced, low-medium before and after mitigation measures. This alternative layout option is also supported by the botanists provided that the recommended mitigation measures are implemented.

SECTION J: GENERAL

1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.

Key findings of the EIA

→ The site predominantly consists of natural vegetation classified as Robertson Karoo, a vegetation type considered Least Threatened at the national level.

→ Botanical assessments identified that approximately 63% of the site is mapped as High botanical sensitivity, particularly in central and southeastern areas. These zones support Species of Conservation Concern (SoCC) such as *Brianhuntleya intrusa* (Near Threatened) and *Aspalathus lactea ssp. breviloba* (Vulnerable).

→ The EIA confirmed the absence of Critical Biodiversity Areas (CBAs) and freshwater features (e.g., wetlands or seasonal drainage lines) within the proposed development footprint, minimising ecological conflict and the likelihood of aquatic ecosystem impacts.

→ While no CBAs are present, parts of the site are classified as Ecological Support Area 1 (ESA1), which permits limited development under strict mitigation, particularly to maintain ecological processes and connectivity.

→ A terrestrial impact assessment concluded that the proposed development would result in localised loss of natural vegetation but would not significantly compromise ecological functioning or regional connectivity, especially given existing fragmentation caused by agriculture to the west, north, and south of the site.

→ Soil conditions vary across the site with deeper, loamy clay soils particularly in the southwestern and southeastern sections which offer greater agricultural potential, whereas central and northeastern areas are characterised by shallow soils with shale exposure, lower fertility, and reduced suitability for cultivation.

→ The suitability of different soil areas informs both the layout and intensity of proposed vineyard activities, helping to minimize soil degradation.

→ The preferred layout (Alternative 3) limits the development footprint to 2 ha, avoiding all areas mapped as High sensitivity and completely excluding known SoCC populations. This footprint is significantly smaller than the originally proposed 3.8 ha under Alternative 1.

→ Socio-economic benefits of the development include the creation of temporary and permanent jobs, particularly in the construction and operational phases. The project will generate opportunities for unskilled and semi-skilled labour, benefiting the local community in McGregor.

→ The project is expected to stimulate the local economy by increasing demand for agricultural inputs, construction materials, and logistical services, with potential indirect benefits for small-scale local enterprises and service providers.

→ The subject property is located within a well-established agricultural zone, and the proposed expansion aligns with existing land-use practices, reducing the likelihood of land-use conflicts.

→ The development does not infringe upon major ecological corridors, climate change adaptation pathways, or high-priority conservation areas. As such, the project is not expected to compromise long-term ecological resilience in the region.

1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

See **Appendix B.**

1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

Positive impacts

- → The preferred alternative avoids all areas of high botanical sensitivity and known populations of Species of Conservation Concern (SoCC), thereby significantly reducing direct ecological impacts compared to earlier layouts
- → The development occurs on land already zoned for agriculture and integrates with existing farming operations, aligning with sustainable land-use principles and avoiding the need to transform new or ecologically intact land elsewhere.
- → The absence of wetlands, drainage lines, and freshwater ecosystems within the project area means that the risk to surface water resources is low.
- → The project is expected to generate temporary employment during construction and permanent jobs in its operation. This includes opportunities for unskilled and semi-skilled workers, contributing to reduced local unemployment and socio-economic upliftment.
- → Increased demand for local goods, materials, and services during both construction and operational phases will benefit surrounding businesses.

Negative Impacts

- → Even with the reduced development footprint (2 ha), the project will result in the permanent loss of indigenous vegetation, including portions of Medium and Medium-High sensitivity areas.
- → Under the previously preferred layout (Alternative 1), the development would have directly impacted High Sensitivity areas and resulted in the loss of approximately 10% of the local *Brianhuntleya intrusa* population, a Near Threatened species.
- → Although the site lies within a largely transformed agricultural matrix, further cultivation may contribute incrementally to the reduction in regional ecological connectivity.
- → Clearing vegetation and cultivating slopes could increase the risk of soil degradation and erosion, particularly in areas with shallow soils, if not properly managed.

2. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr

The botanical assessment recommendations are as follows; however, the EAP does not support the recommendation on the monetary contributions (donations) as this is not formally:

Recommendations

- → The development of the approximately 3.8ha of new cultivation on site is likely to have an acceptable Medium negative botanical impact at a regional scale, if Alternative 1 would be preferred, which would be Low to Medium negative if only the western proposed development area is cultivated.
- → Although the vegetation type on site (Robertson Karoo) is Least Threatened on a national basis it is still very poorly conserved (<1%), making it vulnerable to further loss (especially from agriculture, which is ongoing at pace in the region) unless steps are taken to address this.
- → At least two plant Species of Conservation Concern were recorded in the study area, but only one of these SoCC (*Brianhuntleya intrusa*) is likely to lose about 10% of its site population to the proposed development (in Block 2

of Alternative 1), with the other SoCC not likely to be impacted. Alternative 2 is not likely to impact on any plant SoCC.

- → A biodiversity offset is not required as the habitat is regarded as being Least Concern and Alternative 2 and 3 will not impact any SoCC whilst Alternative 1 will only impact about 10% of the site population of the Near Threatened *Brianhuntleya intrusa,* which is still very common both on site and in the region.
- → Due to its significantly smaller footprint Alternative 3 is now one of the preferred development alternatives, with a lower construction phase botanical impact than the applicants previously preferred Alternative 1, and similar to that of Alternative 2.
- → Thus from a botanical perspective Alternatives 2 and 3 are the equally preferred development alternatives for this site.
- → All mitigation outlined in Section 7 must be adequately and timeously implemented.
- → It is recommended (not a requirement) that the applicant make a significant donation (>20% of the total development costs of the proposed cultivation and vineyard expansion) to the nearby Vrolikheid Nature Reserve (managed by CapeNature, and conserving a similar vegetation type, but with the usual budget constraints) in order to help mitigate the residual botanical impacts of the development, and this funding should be used for management on or off the Reserve, or for Reserve expansion.

Mitigation measures:

- → The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs.
- → No disturbance or loss of vegetation should be allowed within the Medium and High sensitivity areas outside the proposed development footprints at any stage in the future.
- → Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints must be undertaken prior to any site development. In addition, for Alternative 1 & 3, any specimens of the Near Threatened vygie *Brianhuntleya intrusa* (absent from Alt 3 footprint), the dwarf succulent *Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in southern part of Block 2) within the authorised footprint must be rescued (none of these is in the Alternative 2 footprint). This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site (if not developed), and the remainder can be used elsewhere (at contractor and botanist's discretion).

2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.

None that the EAP is aware of.

2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

It is my reasoned opinion that the proposed expansion via two cultivation blocks as presented in Alternative 3 (Preferred) should be authorised. The project demonstrates clear socio-economic benefits, such as job creation and economic stimulation within the local community and aligns with the current agricultural land use of the area. Moreover, the proposed activity will utilize existing arable land, promoting productive use of arable agricultural land without necessitating the clearance of undeveloped or conservation worthy land elsewhere. The preferred site development plan now excludes cultivation on areas which are mapped as high botanical sensitive as well as avoiding areas identified to have plant species of conservation concern. Of crucial importance, this new preferred layout design reduces the development footprint from the previously preferred (3.8 ha) under Alternative 1 to new refined layout resulting to loss of 2 ha of indigenous vegetation on medium and medium-high sensitive areas.

The proposed development of the cultivation blocks is firmly supported by detailed soil analysis as well as the botanical assessment conducted on-site, which provide a robust foundation for the suitability of the identified areas. The soil sampling results reveal that the selected areas, represented by Alternative 3, possess the essential characteristics required for successful vineyard cultivation, including appropriate drainage, soil texture, and nutrient composition. These attributes are critical in ensuring optimal growth and achieving high-quality yields of the crops, making the proposed development a viable and sustainable agricultural endeavour. On the other hand, the addendum to specialist botanical assessment also supports the new preferred layout (Alternative 3) with the reduced development footprint, as well as avoidance of plants species of conservation concern locations.

The identified soil types demonstrate compatibility with viticulture requirements, such as moderate to deep profiles that facilitate root penetration and moisture retention. Additionally, the soil pH levels are conducive to crop health, especially grapes requiring minimal amendments to meet cultivation standards. These findings from the soil analysis highlight the inherent agricultural potential of the site, confirming that the selected areas provide the optimal conditions for the establishment of new additional cultivation blocs without compromising the surrounding environment. The strategic selection of the cultivation blocks based on soil analysis also aligns with sustainable agricultural practices. By focusing on areas with the most suitable soil characteristics, the development minimizes unnecessary land disturbance and ensures efficient use of resources. This approach not only supports the long-term productivity of the farm but also reduces environmental impacts, further strengthening the rationale for proceeding with the proposed development.

Conditions of Authorisations

- EMPr recommendation must be adhered to
- The approved development areas must be surveyed and clearly demarcated on the ground prior to any site development, so that no accidental disturbance of the conservation areas occurs.
- Search and Rescue of all translocatable bulbs and succulents (at least 15 species) from within the development footprints must be undertaken prior to any site development. In addition, for Alternative 1 & 3, any specimens of the Near Threatened vygie *Brianhuntleya intrusa* (absent from Alt 3 footprint), the dwarf succulent *Tulista pumila* and the unnamed purple flowered *Anisodontea* (seen only in southern part of Block 2) within the authorised footprint must be rescued (none of these is in the Alternative 2 footprint). This must be undertaken by a qualified Search and Rescue contractor approved by the botanist. Some of the material should be used to help rehabilitate the previously disturbed northeastern part of the site (if not developed), and the remainder can be used elsewhere (at contractor and botanist's discretion).

2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

The applicant proposes an expansion of the existing vineyard farming on the farm that is already involved in vineyard farming. Specialist assessment conducted on site highlighted that the site contains Robertson Karoo indigenous vegetation type which is Least Threatened in terms of its ecosystem status. It was further highlighted that the site is falls within Ecological Support Area (ESA1) but is outside of the Critical Biodiversity Area (CBAs) and Ecological Support Areas (ESAs) mapped by the Western Cape Biodiversity Spatial Planning.

As per Botanical assessment, the proposed expansion will result to the loss of vegetation in areas that contain medium and high botanical sensitivity if Alternative 1, whereas for Alternative 2 impacts are slightly lower (low -Medium negative) if they could be considered. This will take place during the construction phase. It should be noteworthy that the type of development hereto mainly depends on soil chemistry which looks at the soil suitability for the proposed site. The new layout design (Alternative 3) that is presented by the applicant reflects commitment to minimisation of vegetation loss on the property through the revised and reduced development footprint. The preferred alternative now excludes cultivation on areas where plants species of conservation concern was identified and reduces the development footprint.

2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

Five years should be the EA period. While no further information can be provided at the time of the Draft BAR, the applicant would aim to commence with construction as soon as possible once the EA is granted.

3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.
The proposal is for the expansion of the vineyards, the construction phase only includes the cultivation of land for the plantation of vineyards. During the operational phase of the proposed development, Water will be required for the vineyards, particularly at the planting stage.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.
Waste is collected and stored onsite, there is a contractor available for taking.

5. Energy Efficiency

8.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.
The project does not have high energy requirements.	

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

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

I, ALWYN LLEWELLYN KRUIT ID number 6702285229081 in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;
- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;
- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;
- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;
- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

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

Signature of the Applicant: Date: 5/05/2025

IMPERATIVE LINK TRADE 22 C.C.

Name of company (if applicable):

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I **MICHELLE NAYLOR,** EAP Registration number **2019/698** as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this BAR and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that:
- 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 activity or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application;
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
- I have kept a register of all interested and affected parties that participated in the public participation process; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;

MNaylor

13-05-2025

Signature of the EAP: Date:

LORNAY ENVIRONMENTAL CONSULTING

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

I ……, EAP Registration number …….. as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have 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
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF 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:

- 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 of the NEMA EIA Regulations 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;

- I 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

- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE REVIEW SPECIALIST

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

- I have reviewed all the work produced by the Specialist(s):
- I have reviewed the correctness of the specialist information provided as part of this Report;
- I meet all of the general requirements of specialists as set out in Regulation 13 of the NEMA EIA Regulations;
- I have 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 NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):