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AGRICULTURAL AGRO-ECOSYSTEM SPECIALIST ASSESSMENT FOR A PROPOSED DEVELOPMENT ON FARM RE/219, VAALEVALLEY NEAR HARTENBOS, WESTERN CAPE

Report by
Johann Lanz

16 July 2025

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EXECUTIVE SUMMARY

The screening tool classifies the assessed area as ranging from medium to high agricultural sensitivity. The high sensitivity classification is due to the land being classified as cropland. This assessment verifies that the land is utilised for and viable as cropland and therefore confirms the high sensitivity classification of the screening tool.

Despite some climate and soil constraints, the site is of high enough agricultural potential that it is suitable and used for viable crop production of small grains. The soils are rated as high potential soils.

The single, direct agricultural impact of this development is the total loss of agricultural production potential due to the permanent exclusion of agriculture from the development site. The entire development footprint is considered to be above the threshold of being worthy for conservation as agricultural production land because its agricultural potential makes it suitable as viable cropland. The proposed development will result in the permanent loss of this land to agriculture, which will result in a loss of future agricultural production potential in terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of medium significance.

The acceptability and ultimate approval of the development cannot be based purely on its agricultural impact but requires the weighing of many diverse factors, which include the high demand for development space within Mossel Bay and the fact that this area is designated for foreseeable future expansion in the Mossel Bay Spatial Development Framework. Such a weighing is far beyond the scope of an agricultural impact assessment, which cannot therefore conclude on the overall acceptability of the development.

1 INTRODUCTION

Environmental and change of land use authorisation is being sought for a proposed development on Farm RE/219, Vaalevalley near Hartenbos, Western Cape (see location in Figure 1). In terms of the National Environmental Management Act (Act No 107 of 1998 - NEMA), an application for environmental authorisation requires an agricultural assessment. In this case, based on the high agricultural sensitivity of the site (see Section 7), the level of agricultural assessment required by the protocol is an Agricultural Agro-Ecosystem Specialist Assessment.

Figure 1. *Locality map of the property boundary (blue outline), north of Mossel Bay.*

The purpose of an agricultural assessment is to answer the question:

> Will the proposed development cause a significant reduction in agricultural production potential, and most importantly, will it result in a loss of arable land?

Section 9 of this report unpacks this question, particularly with respect to what constitutes a significant reduction. To answer the above question, it is necessary to determine the existing agricultural production potential of the land that will be impacted, and specifically whether it is viable arable land or not. This is done in Section 8 of this report. Sections 8 and 9 of this report directly address the above question and therefore contain the essence and most important part of the agricultural impact assessment.

2 PROJECT DESCRIPTION

The proposed project is a hospital and school development. The project will cause the permanent exclusion of any potential future agricultural production from the entire project site. Once agriculture is excluded from the site, there can be no further on-site agricultural impact. There is also no off-site agricultural impact. The design and layout of the development within the project site is therefore of no relevance to agricultural impacts and it is unnecessary to consider it any further in this assessment. All that is of relevance is the loss of the total site to potential future agricultural production.

3 TERMS OF REFERENCE

The terms of reference for this study are to fulfill the requirements of the *Protocol for the specialist assessment and minimum report content requirements of environmental impacts on agricultural resources*, gazetted on 20 March 2020 in GN 320 (in terms of Sections 24(5)(A) and (H) and 44 of NEMA, 1998).

The terms of reference for an Agricultural Agro-Ecosystem Specialist Assessment, as stipulated in the protocol, are listed below, and the section number of this report which fulfils each stipulation is given after it in brackets.

1. The assessment must be undertaken by a soil scientist or agricultural specialist registered with the South African Council for Natural Scientific Professions (SACNASP). (**Appendix 3**)
2. The assessment must be undertaken on the preferred site and within the proposed development footprint. (**Figures 2 and 3**)
3. The assessment must be undertaken based on a site inspection as well as an investigation of the current production figures, where the land is under cultivation or has been within the past 5 years, and must identify:
    - the extent of the impact of the proposed development on the agricultural resources (**Section 9.1**);
    - whether or not the proposed development will have an unacceptable negative impact on the agricultural production capability of the site (**Section 12**), and in the event where it does, whether such a negative impact is outweighed by the positive impact of the proposed development on agricultural resources.
4. The status quo of the site must be described, including the following aspects which must be considered as a minimum in the baseline description of the agro-ecosystem:
    - The soil form/s, soil depth (effective and total soil depth), top and sub-soil clay percentage, terrain unit and slope (**Section 8**);
    - Where applicable, the vegetation composition, available water sources as well as agro-climatic information (**Section 8**);

- The current productivity of the land based on production figures for all agricultural activities undertaken on the land for the past 5 years, expressed as an annual figure and broken down into production units (**Section 8**);
- The current employment figures (both permanent and casual) for the land for the past 3 years, expressed as an annual figure (**Section 8**);
- Existing impacts on the site, located on a map where relevant (e.g. erosion, alien vegetation, non-agricultural infrastructure, waste, etc **Section 8**).

5. Assessment of Impacts, including the following which must be considered as a minimum in the predicted impact of the proposed development on the agro-ecosystem:
   - Change in productivity for all agricultural activities based on the figures of the past 5 years, expressed as an annual figure and broken down into production units (**Section 9.1**);
   - Change in employment figures (both permanent and casual) for the past 5 years expressed as an annual figure (**Section 9.1**);
   - Any alternative development footprints within the preferred site which would be of "medium" or "low" sensitivity for agricultural resources as identified by the screening tool and verified through the site sensitivity verification (**Section 9.3**).
6. The findings of the Agricultural Agro-Ecosystem Specialist Assessment must be written up in an Agricultural Agro-Ecosystem Specialist Report that contains as a minimum the following information:
   - Details and relevant experience as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the assessment including a curriculum vita (**Appendix 1);**
   - A signed statement of independence by the specialist (**Appendix 2**);
   - The duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment (**Section 4**);
   - A description of the methodology used to undertake the on-site assessment inclusive of the equipment and models used, as relevant (**Section 4**);
   - A map showing the proposed development footprint (including supporting infrastructure) with a 50 m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool (**Figure 2**);
   - An indication of the potential losses in production and employment from the change of the agricultural use of the land as a result of the proposed development **Section 9.1**);
   - an indication of possible long-term benefits that will be generated by the project in comparison to the benefits of the agricultural activities on the affected land (**Section 11.3**);
   - Additional environmental impacts expected from the proposed development based on the current status quo of the land including erosion, alien vegetation, waste, etc. (**Section 11.4**);

- Information on the current agricultural activities being undertaken on adjacent land parcels (**Section 8**);
- an identification of any areas to be avoided, including any buffers (Section 9);
- a motivation must be provided if there were development footprints identified as per point 5.3 above that were identified as having a medium or low agricultural sensitivity and that were not considered appropriate (**Section 9.3**);
- Confirmation from the soil scientist or agricultural specialist that all reasonable measures have been considered in the micro-siting of the proposed development to minimise fragmentation and disturbance of agricultural activities (**Section 11.1**);
- A substantiated statement from the soil scientist or agricultural specialist with regards to agricultural resources on the acceptability or not of the proposed development and a recommendation on the approval or not of the proposed development (**Section 12**);
- Any conditions to which this statement is subjected (**no conditions**);
- Where identified, proposed impact management outcomes or any monitoring requirements for inclusion in the Environmental Management Programme (EMPr) (**Section 10**);
- A description of the assumptions made and any uncertainties or gaps in knowledge or data (**Section 5**).

4 METHODOLOGY OF STUDY

The assessment was based on an on-site investigation of the soils and agricultural conditions conducted on 2 and 6 October 2024. It was also informed by existing climate, soil, and agricultural potential data for the site (see references). The aim of the on-site assessment was to:

1. ground-truth cropland status;
2. assess the soil potential
3. gain an understanding of overall agricultural production potential across the site.

Soils were assessed based on the investigation of existing soil exposures in combination with indications of the surface conditions and topography, and strategically positioned auger samples where necessary. Soils were classified according to the South African soil classification system (Soil Classification Working Group, 2018).

An assessment of soils and long-term agricultural potential is in no way affected by the season in which the assessment is made, and therefore the date on which this assessment was done has no bearing on its results. The level of agricultural assessment is considered entirely adequate for an understanding of on-site agricultural production potential for the purposes of this assessment.

5 ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE OR DATA

There are no specific assumptions, uncertainties or gaps in knowledge or data that affect the findings of this study.

6 APPLICABLE LEGISLATION AND PERMIT REQUIREMENTS

This section identifies all applicable agricultural legislation and permit requirements over and above what is required in terms of NEMA.

The project will require agricultural approval (or at least comment from Department of Agriculture) as part of the required approval in terms of applicable municipal land use legislation, as well as in terms of the Subdivision of Agricultural Land Act (Act 70 of 1970 - SALA), because it is on land currently zoned for agriculture.

7 SITE SENSITIVITY VERIFICATION

A specialist agricultural assessment is required to include a verification of the agricultural sensitivity of the development site as per the sensitivity categories used by the web-based environmental screening tool of the Department of Forestry, Fisheries and the Environment (DFFE). The screening tool's classification of sensitivity is merely an initial indication of what the sensitivity of a piece of land might be. What the screening tool attempts to indicate is whether the land is suitable for crop production (high and very high sensitivity) or unsuitable for crop production (low and medium sensitivity). To do this, the screening tool uses two independent criteria, from two independent data sets, which are indicators of suitability for crop production but are limited in that the first is outdated and the second is fairly course, modelled data which is not accurate at site scale. The two criteria are:

1. Whether the land is classified as cropland or not on the field crop boundary data set (Crop Estimates Consortium, 2019). All classified cropland is, by definition, either high or very high sensitivity.
2. Its land capability rating as per the Department of Agriculture's updated and refined, country-wide land capability mapping (DAFF, 2017). Land capability is defined as the combination of soil, climate, and terrain suitability factors for supporting rain-fed agricultural production. The direct relationship between land capability rating, agricultural sensitivity, and rain-fed cropping suitability is shown in Table 1.

These two inputs operate independently, and the screening tool's agricultural sensitivity is simply determined by whichever of these two gives the highest sensitivity rating. The agricultural sensitivity of the site, as classified by the screening tool, is shown in Figure 2.

The true agricultural sensitivity of any land is equivalent to its suitability for crop production, which in turn directly determines how important it is to conserve that land as agricultural production land. To determine suitability for crop production, and hence sensitivity, requires a site-specific assessment rather than a reliance on limited data sets.

It is important to note that agricultural sensitivity is not necessarily correlated with the significance of an agricultural impact and is therefore often of very limited value for assessing agricultural impact. What is of importance to an agricultural assessment, rather than the site sensitivity verification, is its assessment of the impact significance.

Table 1: Relationship between land capability, agricultural sensitivity, and rain-fed cropping suitability.

Land capability value	Agricultural sensitivity	Rain-fed cropping suitability	
		Summer rainfall areas	Winter rainfall areas
1 - 5	Low	Unsuitable	Unsuitable
6	Medium		
7			Suitable
8	High	Suitable	
9 - 10			
11 - 15	Very High		

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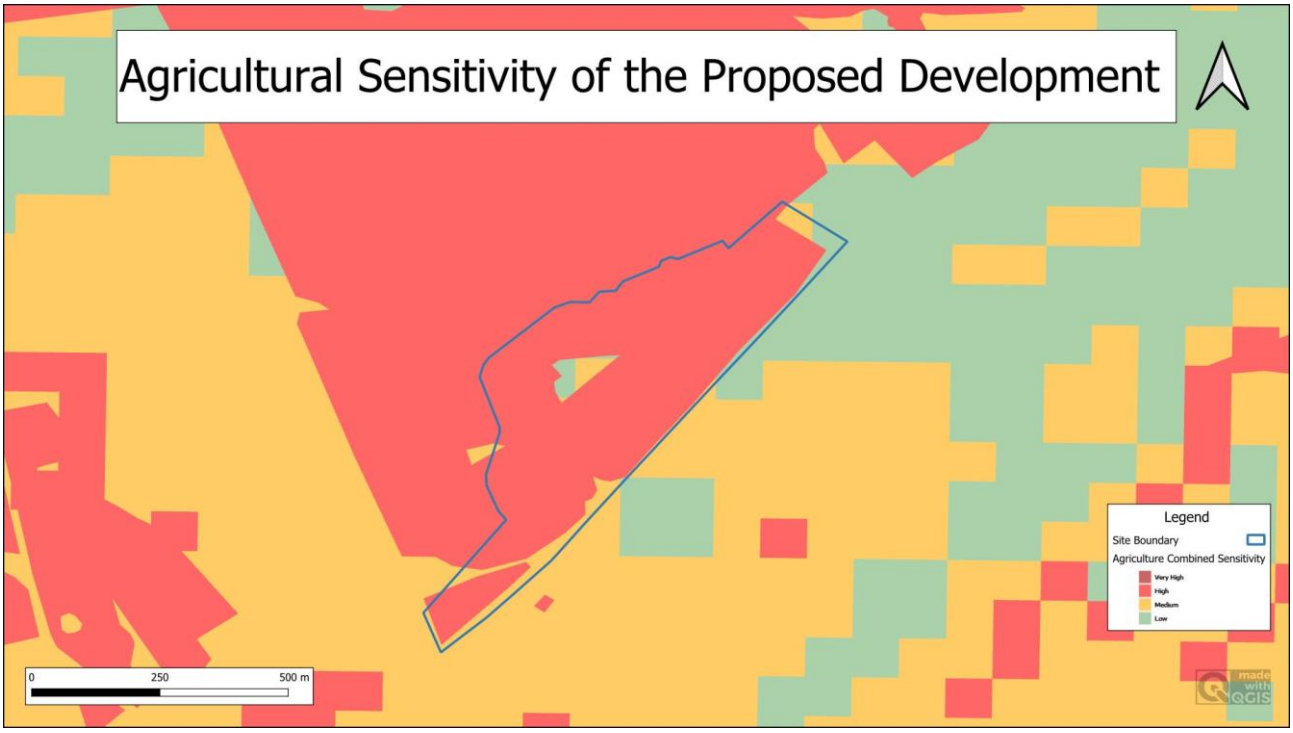

Figure 2. *The assessed development footprint (blue outline) overlaid on agricultural sensitivity, as*

given by the screening tool (green = low; yellow = medium; red = high; dark red = very high).

The screening tool classifies the assessed area as ranging from medium to high agricultural sensitivity. The high sensitivity classification is due to the land being classified as cropland. This assessment verifies that the land is utilised for and viable as cropland (see Section 8) and therefore confirms the high sensitivity classification of the screening tool.

8 BASELINE DESCRIPTION OF THE AGRO-ECOSYSTEM

The purpose of this section is firstly to present the baseline information that controls the agricultural production potential of the site and then, most importantly, to assess that potential. Agricultural production potential, and particularly cropping potential, is one of three factors that determines the significance of an agricultural impact, together with size of footprint and duration of impact (see Section 9), and it directly determines the true agricultural sensitivity of the land.

All the important parameters that control the agricultural production potential of the site are given in Table 2. A map of the development site is given in Figure 3. Site photographs are given in Figure 4 to 7.

The site is not within a Protected Agricultural Area (PAA) (DALRRD, 2020). A PAA is a demarcated area in which the climate, terrain, and soil are generally conducive for agricultural production and which, historically, or in a regional context, has made important contributions to the production of the various crops that are grown across South Africa. Within PAAs, the protection of viable, arable land is considered a priority for the protection of food security in South Africa.

Table 2: Parameters that control and/or describe the agricultural production potential of the site.

	Parameter	**Value**
Climate	Köppen-Geiger climate description (Beck *et al*, 2018)	Arid, steppe, cold
	Mean Annual Rainfall (mm) (Schulze, 2009)	340
	Reference Crop Evaporation Annual Total (mm) (Schulze, 2009)	825
	Climate capability classification (out of 9) (DAFF, 2017)	5 (moderate)
Terrain	Terrain type	Coastal Hills
	Terrain morphological unit	Footslope
	Slope gradients (%)	0 to 18

	Parameter	Value
	Altitude (m)	55
	Terrain capability classification (out of 9) (DAFF, 2017)	3 (low) to 5 (moderate)
Soil	Geology (DAFF, 2002)	Dc28: Mainly conglomerate, sandstone, siltstone and mudstone of the Enon Formation, Uitenhage Group. Ia40: Mainly alluvial valley deposits.
	Land type (DAFF, 2002)	Dc28, Ia40
	Description of the soils	Predominantly deep to moderately deep, medium textured, red, fairly well-drained soils on underlying clay.
	Dominant soil forms	Oakleaf, Tukulu
	Soil suitability on 10-point Western Cape rating system	6.5 to 7.0
	Soil capability classification (out of 9) (DAFF, 2017)	4 (low-moderate) to 6 (moderate-high)
	Soil limitations	Few limitations for most crops. Soils in lower positions in the landscape are Tukulu soils that are shallower and slightly less well drained than the Oakleaf soils that occur higher up the slope. Rocks do occur in places.
Land use	Agricultural land use in the surrounding area	Small grains
	Agricultural land use on the site	Small grains
General	Long-term grazing capacity (ha/LSU) (DAFF, 2018)	Predominantly 35
	Land capability classification (out of 15) (DAFF, 2017)	4 (low-very low) to 8 (moderate)
	Within Protected Agricultural Area (DALRRD, 2020)	No

Figure 3. *Satellite image map of the development footprint.*

Figure 4. *Typical site conditions.*

Figure 5. *Typical Oakleaf soils on site.*

Figure 6. *Typical site conditions and soils on site.*

Figure 7. *Evidence of rocky patches that occur.*

The agricultural protocol requires the current productivity of the land based on detailed production figures and it requires the current employment figures. However, yield details are notoriously hard to get and are not considered necessary for this assessment of agricultural impact. What is relevant is simply that the site is suitable for small grain production, regardless of what yields have been, and the loss of the site is therefore a loss of future potential for small grain production.

There are no existing impacts on the site that are relevant to this assessment of agricultural impact.

8.1 Assessment of the agricultural production potential

This assessment of the agricultural production potential of the site is based on an integration of the different parameters in Table 2 above and the on-site soil investigation.

Despite some climate and soil constraints, the site is of high enough agricultural potential that it is suitable and used for viable crop production of small grains.

9 ASSESSMENT OF THE AGRICULTURAL IMPACT

9.1 Impact identification and assessment

The single, direct agricultural impact of this development is the total loss of agricultural production potential due to the permanent exclusion of agriculture from the development site. The significance of this loss is a direct function of the following factors:

1. the size of the footprint of land from which agriculture will be excluded
2. the baseline production potential (particularly cropping potential) of that land

The most significant loss of potential, for any development anywhere in the country, is on high yielding cropland, and the least significant possible, is on low carrying capacity grazing land. Cropping potential is highlighted in factor 2, above, because the threshold, above which it is a priority to conserve land for agricultural production, is determined by the scarcity of arable crop production land in South Africa (approximately only 13% of the country's surface area) and the relative abundance of the rest of agricultural land across the country that is only good enough to be used for grazing. If land can support viable and sustainable crop production, then it is considered to be above the threshold and is a priority for being conserved as agricultural production land. If land is unable to support viable and sustainable crop production, then it is considered to be below the threshold and of much lower priority for being conserved.

In this case, the entire development footprint is considered to be above the threshold of being worthy for conservation as agricultural production land because its agricultural potential makes it

suitable as viable cropland. The proposed development will result in the permanent loss of this land to agriculture, which will result in a loss of future agricultural production potential in terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of medium significance.

The acceptability and ultimate approval of the development cannot be based purely on its agricultural impact but requires the weighing of many diverse factors, which include the high demand for development space within Mossel Bay and the fact that this area is designated for foreseeable future expansion in the Mossel Bay Spatial Development Framework. Such a weighing is far beyond the scope of an agricultural impact assessment, which cannot therefore conclude on the overall acceptability of the development.

The agricultural protocol requires an indication of the potential losses in production and employment from the change of the agricultural use of the land as a result of the proposed development. A total of 28.5 hectares of small grain cropland will be lost. The relatively small area of lost cropland is unlikely to affect agricultural employment within the farming enterprise.

9.2 Cumulative impact assessment

Specialist assessments for environmental authorisation are required to include an assessment of cumulative impacts. The cumulative impact of a development is the impact that development will have when its impact is added to the incremental impacts of other past, present, or reasonably foreseeable future activities that will affect the same environment. The potential cumulative agricultural impact of importance is a regional loss of future agricultural production potential.

Agricultural land throughout South Africa is under inevitable pressure from various non-agricultural land uses, including urban expansion. The cumulative impact of agricultural land loss is significant, and this development will contribute to that. The cumulative agricultural impact of the proposed development is therefore assessed as being of medium significance.

9.3 Assessment of alternatives

Specialist assessments for environmental authorisation are required to include a comparative assessment of alternatives, including the no-go alternative. The nature and layout of the development has absolutely no bearing on the significance of agricultural impacts, because agriculture will be completely excluded from the entire development footprint, regardless of layout. Any alternative layouts within the boundary will have equal agricultural impact.

The no-go alternative considers impacts that will occur to the agricultural environment in the absence of the proposed development. There are no agricultural impacts of the no-go alternative,

and it is therefore the preferred alternative if assessed purely from an agricultural impact perspective.

10 MITIGATION

No mitigation measures are required for the protection of agricultural production potential on the site because the entire site will be permanently excluded from agricultural land use. Erosion to surrounding farmland does not pose a threat or require specific mitigation because a sophisticated, engineered system for managing water runoff will be inherent in the engineering of such a development.

11 ADDITIONAL ASPECTS REQUIRED IN AN AGRICULTURAL ASSESSMENT

11.1 Micro-siting

The agricultural protocol requires confirmation that all reasonable measures have been taken through micro-siting to minimize fragmentation and disturbance of agricultural activities. Because agriculture will be permanently excluded from the entire site, micro-siting will make no material difference to agricultural impacts and disturbance.

11.2 Confirmation of linear activity exclusion

If linear infrastructure has been given exclusion from complying with certain requirements of the agricultural protocol because of its linear nature, the protocol requires confirmation that the land impacted by that linear infrastructure can be returned to the current state within two years of completion of the construction phase. No such exclusion applies to this project.

11.3 Long term benefits versus agricultural benefits

It is outside of the scope of an agricultural assessment to consider the value of the potential benefits that the proposed development will provide to the area.

11.4 Additional environmental impacts

There are no additional environmental impacts of the proposed development that are relevant to this assessment of agricultural impact.

12 CONCLUSION

The screening tool classifies the assessed area as ranging from medium to high agricultural sensitivity. The high sensitivity classification is due to the land being classified as cropland. This assessment verifies that the land is utilised for and viable as cropland and therefore confirms the high sensitivity classification of the screening tool.

Despite some climate and soil constraints, the site is of high enough agricultural potential that it is suitable and used for viable crop production of small grains. The soils are rated as high potential soils.

The single, direct agricultural impact of this development is the total loss of agricultural production potential due to the permanent exclusion of agriculture from the development site. The entire development footprint is considered to be above the threshold of being worthy for conservation as agricultural production land because its agricultural potential makes it suitable as viable cropland. The proposed development will result in the permanent loss of this land to agriculture, which will result in a loss of future agricultural production potential in terms of national food security. The overall negative agricultural impact of the development (loss of future agricultural production potential) is assessed here as being of medium significance.

The acceptability and ultimate approval of the development cannot be based purely on its agricultural impact but requires the weighing of many diverse factors, which include the high demand for development space within Mossel Bay and the fact that this area is designated for foreseeable future expansion in the Mossel Bay Spatial Development Framework. Such a weighing is far beyond the scope of an agricultural impact assessment, which cannot therefore conclude on the overall acceptability of the development.

13 REFERENCES

Beck, H.E., N.E. Zimmermann, T.R. McVicar, N. Vergopolan, A. Berg, E.F. Wood. 2018. Present and future Köppen-Geiger climate classification maps at 1-km resolution, Nature Scientific Data. Available at: https://gis.elsenburg.com/apps/cfm/.

Crop Estimates Consortium, 2019. *Field Crop Boundary data layer, 2019*. Pretoria. Department of Agriculture, Forestry and Fisheries.

Department of Agriculture Forestry and Fisheries (DAFF). 2018. Long-term grazing capacity map for South Africa developed in line with the provisions of Regulation 10 of the Conservation of Agricultural Resources Act, Act no 43 of 1983 (CARA), available on Cape Farm Mapper. Available at: https://gis.elsenburg.com/apps/cfm/

Department of Agriculture, Forestry and Fisheries (DAFF). 2017. National land capability evaluation raster data layer, 2017. Pretoria.

Department of Agriculture, Forestry and Fisheries (DAFF). 2002. National land type inventories data set. Pretoria.

Department of Agriculture, Land Reform and Rural Development (DALRRD). 2020. Protected agricultural areas – Spatial data layer. 2020. Pretoria.

Schulze, R.E. 2009. South African Atlas of Agrohydrology and Climatology, available on Cape Farm Mapper. Available at: https://gis.elsenburg.com/apps/cfm/

Soil Classification Working Group. 2018. Soil Classification: A Natural and Anthropogenic System for South Africa. ARC-Institute for Soil, Climate and Water, Pretoria.

APPENDIX 1: SPECIALIST CURRICULUM VITAE

Johann Lanz
Curriculum Vitae

Education

M.Sc. (Environmental Geochemistry)	University of Cape Town	1996 - 1997
B.Sc. Agriculture (Soil Science, Chemistry)	University of Stellenbosch	1992 - 1995
BA (English, Environmental & Geographical Science)	University of Cape Town	1989 - 1991
Matric Exemption	Wynberg Boy's High School	1983

Professional work experience

I have been registered as a Professional Natural Scientist (Pri.Sci.Nat.) in the field of soil science since 2012 (registration number 400268/12) and am a member of the Soil Science Society of South Africa.

Soil & Agricultural Consulting **Self employed** **2002 - present**

Within the past 5 years of running my soil and agricultural consulting business, I have completed more than 170 agricultural assessments (EIAs, SEAs, EMPRs) in all 9 provinces for renewable energy, mining, electrical grid infrastructure, urban, and agricultural developments. I was the appointed agricultural specialist for the nation-wide SEAs for wind and solar PV developments, electrical grid infrastructure, and gas pipelines. My regular clients include: Zutari; CSIR; SiVEST; SLR; WSP; Arcus; SRK; Environamics; Royal Haskoning DHV; ABO; Enertrag; WKN-Windcurrent; JG Afrika; Mainstream; Redcap; G7; Mulilo; and Tiptrans. Recent agricultural clients for soil resource evaluations and mapping include Cederberg Wines; Western Cape Department of Agriculture; Vogelfontein Citrus; De Grendel Estate; Zewenwacht Wine Estate; and Goedgedacht Olives.
In 2018 I completed a ground-breaking case study that measured the agricultural impact of existing wind farms in the Eastern Cape.

Soil Science Consultant **Agricultural Consultors International (Tinie du Preez)** **1998 - 2001**

Responsible for providing all aspects of a soil science technical consulting service directly to clients in the wine, fruit and environmental industries all over South Africa, and in Chile, South America.

Contracting Soil Scientist **De Beers Namaqualand Mines** **July 1997 - Jan 1998**

Completed a contract to advise soil rehabilitation and re-vegetation of mined areas.

Publications

- Lanz, J. 2012. Soil health: sustaining Stellenbosch's roots. In: M Swilling, B Sebitosi & R Loots (eds). *Sustainable Stellenbosch: opening dialogues*. Stellenbosch: SunMedia.
- Lanz, J. 2010. Soil health indicators: physical and chemical. *South African Fruit Journal*, April / May 2010 issue.
- Lanz, J. 2009. Soil health constraints. *South African Fruit Journal*, August / September 2009 issue.
- Lanz, J. 2009. Soil carbon research. *AgriProbe*, Department of Agriculture.
- Lanz, J. 2005. Special Report: Soils and wine quality. *Wineland Magazine.*

I am a reviewing scientist for the *South African Journal of Plant and Soil*.

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& the environment
Department:
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APPENDIX 2: SPECIALIST DECLARATION FORM AUGUST 2023

Specialist Declaration form for assessments undertaken for application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

REPORT TITLE: PROPOSED DEVELOPMENT ON FARM RE/219, VAALEVALLEY NEAR HARTENBOS, WESTERN CAPE

Kindly note the following:

1. This form must always be used for assessment that are in support of applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting, where this Department is the Competent Authority.
2. This form is current as of August 2023. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.dffe.gov.za/documents/forms.
3. An electronic copy of the signed declaration form must be appended to all Draft and Final Reports submitted to the department for consideration.
4. The specialist must be aware of and comply with '*the Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the act, when applying for environmental authorisation - GN 320/2020)'*, where applicable.

1. SPECIALIST INFORMATION

Title of Specialist Assessment	Agricultural Assessment
Specialist Company Name	SoilZA – sole proprietor
Specialist Name	Johann Lanz
Specialist Identity Number	6607045174089
Specialist Qualifications:	M.Sc. (Environmental Geochemistry)
Professional affiliation/registration:	Registered Professional Natural Scientist (Pr.Sci.Nat.) Reg. no. 400268/12 Member of the Soil Science Society of South Africa
Physical address:	1a Wolfe Street, Wynberg, Cape Town, 7800
Postal address:	1a Wolfe Street, Wynberg, Cape Town, 7800
Telephone	Not applicable
Cell phone	+27 82 927 9018
E-mail	johann@soilza.co.za

2. DECLARATION BY THE SPECIALIST

I, **Johann Lanz** declare that –

- I act as the independent specialist in this application;
- I am aware of the procedures and requirements for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act (NEMA), 1998, as amended, when applying for environmental authorisation which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. “the Protocols”) and in Government Notice No. 1150 of 30 October 2020.
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing –
  - any decision to be taken with respect to the application by the competent authority; and;
  - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 48 and is punishable in terms of section 24F of the NEMA Act.

Signature of the Specialist

SoilZA (sole proprietor)

Name of Company:

22 May 2025

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, **Johann Lanz**, swear under oath that all the information submitted or to be submitted for the purposes of this application is true and correct.

Signature of the Specialist

SoilZA – sole proprietor

Name of Company

22 May 2025

Date

7175165-3

O CAROLUS

Signature of the Commissioner of Oaths

2025. 05. 22

Date

SUID-AFRIKAANSE POLISIEDIENS
GEMEENSKAPSDIENSSENTRUM
22 MAY 2025
COMMUNITY SERVICE CENTRE
MELKBOSSTRAND
SOUTH AFRICAN POLICE SERVICE

APPENDIX 3: SACNASP REGISTRATION CERTIFICATE

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Johan Lanz

Registration Number: 400268/12

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following field(s) of practice (Schedule 1 of the Act)

Soil Science (Professional Natural Scientist)

Effective **15 August 2012** Expires **31 March 2026**

Chairperson

Chief Executive Officer

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