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SITE SENSITIVITY VERIFICATION
AND
AGRICULTURAL AGRO-ECOSYSTEM SPECIALIST ASSESSMENT
FOR A SAND MINING PERMIT APPLICATION ON FARM NUMBER RE/2/199
NEAR CLANWILLIAM, WESTERN CAPE

Report by
Johann Lanz

1 October 2024

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EXECUTIVE SUMMARY

This assessment confirms the very high sensitivity rating of the site by the screening tool because of the site's assessed agricultural production potential and current agricultural land use for irrigated crop production.

The proposed mining will not significantly reduce the future agricultural production potential of the site, if effective rehabilitation is implemented. The proposed mine is therefore acceptable, and, from an agricultural impact point of view, it is recommended that it be approved.

The conclusion of this assessment on the acceptability of the proposed development is subject to the following conditions:

Mine management must be held accountable for well managed and effective implementation of all the recommended rehabilitation steps above. The specific, measurable rehabilitation outcomes against which the effectiveness of completed rehabilitation must be measured are:

1. that the topography and surface have been smoothed sufficiently to allow cultivation;
2. that topsoil has been spread on the surface across the entire mined area to a minimum depth of 300 mm;
3. that there is no visible erosion across the area, or down-slope of it as a result of mining, and that no part of the area has been left unacceptably vulnerable to erosion;
4. that a successful crop has been established across the mined area.

1 INTRODUCTION

Environmental authorisation is being sought for a sand mining permit application on farm number RE/2/199 near Clanwilliam, 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 very high agricultural sensitivity of the footprint (see Section 7), the level of agricultural assessment required by NEMA's agricultural protocol is an Agricultural Agro-Ecosystem Specialist Assessment.

Figure 1. *Locality map of the property on which the mine is proposed, northwest of Clanwilliam.*

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?

The main purpose of an agricultural assessment for mining is to determine whether or not the proposed mining will cause a significant, long-term reduction in agricultural production potential. This is done in Section 9 of this report. In addition, it must recommend mitigation and rehabilitation measures that will minimise any impact on agricultural production potential (Section 10). To achieve this, it is first necessary for the assessment to determine the existing agricultural production

potential of the land that will be impacted, and specifically whether it is viable arable land or not (Section 8).

2 PROJECT DESCRIPTION

The project is a proposed 1.7 hectare mining permit for sand. Topsoil will be stripped and stockpiled and then the underlying sand will be dug out by an excavator and loaded onto trucks. Stockpiled topsoil will be returned to the surface on completion of mining.

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:
    a. the extent of the impact of the proposed development on the agricultural resources (**Section 9**);
    b. whether or not the proposed development will have an unacceptable negative impact on the agricultural production capability of the site (**Section 9**), 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:
    a. The soil form/s, soil depth (effective and total soil depth), top and sub-soil clay percentage, terrain unit and slope (**Section 8**);
    b. Where applicable, the vegetation composition, available water sources as well as agro-climatic information (**Section 8**);
    c. 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**);

d. The current employment figures (both permanent and casual) for the land for the past 3 years, expressed as an annual figure (**Section 8**);
e. 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:
    a. 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 9.3**);
    b. Change in employment figures (both permanent and casual) for the past 5 years expressed as an annual figure (**Section 9.3**);
    c. 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 (**not applicable**).
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:
    a. 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);**
    b. A signed statement of independence by the specialist (**Appendix 2**);
    c. The duration, date and season of the site inspection and the relevance of the season to the outcome of the assessment (**Section 4**);
    d. A description of the methodology used to undertake the on-site assessment inclusive of the equipment and models used, as relevant (**Section 4**);
    e. 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**);
    f. 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 9.3**);
    g. 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 9.5**);
    h. Additional environmental impacts expected from the proposed development based on the current status quo of the land including erosion, alien vegetation, waste, etc. (**Section 9.6**);
    i. Information on the current agricultural activities being undertaken on adjacent land

parcels (**Section 8**);

j. an identification of any areas to be avoided, including any buffers (**no agricultural no-go areas or buffers**);
k. 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 (**not applicable**);
l. 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 9.4**);
m. 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 11**);
n. Any conditions to which this statement is subjected (**Section 11**);
o. Where identified, proposed impact management outcomes or any monitoring requirements for inclusion in the Environmental Management Programme (EMPr) (**Section 10**);
p. 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 24 July 2019. 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 by an investigation of test pits distributed across the site. Soils were classified according to the South African soil classification system (Soil Classification Working Group, 1991). An interview was also conducted with the farmer for information on farming practices on the site.

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. In the case of a mining right or permit application, there are no additional approvals required in terms of agriculture. Rehabilitation after disturbance to agricultural land must meet the requirements stipulated in the Conservation of Agricultural Resources Act (Act 43 of 1983 - CARA).

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). Agricultural sensitivity is an indication of the capability of the land for agricultural production, based only on its climate, terrain, and soil capabilities and its agricultural land use. The different categories of agricultural sensitivity indicate the priority by which land should be conserved as agricultural production land. However, the screening tool's agricultural sensitivity is 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 cropping potential and its assessment of the impact significance, both of which are not necessarily correlated with sensitivity.

The screening tool classifies agricultural sensitivity according to two independent criteria, from two independent data sets, both of which may be indicators of the land's agricultural production potential but are limited in that the first is outdated and the second is fairly course, modelled data. 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), and
2. its land capability rating on the land capability data set (DAFF, 2017)

All classified cropland is, by definition, either high or very high sensitivity. Land capability is defined as the combination of soil, climate, and terrain suitability factors for supporting rain-fed agricultural production. It is rated by the Department of Agriculture's updated and refined, country-wide land capability mapping (DAFF, 2017). The higher land capability values ($\geqslant$8 to 15) are likely to indicate

suitability as arable land for crop production, while lower values (<8) are likely to only be suitable as non-arable grazing land, although application to the winter rainfall areas differs. The direct relationship between land capability rating, agricultural sensitivity, and rain-fed cropping suitability is shown in Table 1, including differences between the summer and winter rainfall areas.

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

<table>
<tr><th rowspan="2">Land capability value</th><th rowspan="2">Agricultural sensitivity</th><th colspan="2">Rain-fed cropping suitability</th></tr>
<tr><th>Summer rainfall areas</th><th>Winter rainfall areas</th></tr>
<tr><td>1 - 5</td><td>Low</td><td rowspan="3">Unsuitable</td><td rowspan="2">Unsuitable</td></tr>
<tr><td>6</td><td rowspan="2">Medium</td></tr>
<tr><td>7</td><td rowspan="3">Suitable</td></tr>
<tr><td>8 - 10</td><td>High</td><td rowspan="2">Suitable</td></tr>
<tr><td>11 - 15</td><td>Very High</td></tr>
</table>

Note: There is an error in the screening tool whereby a land capability of 8 is classified as medium sensitivity, but according to NEMA's agricultural protocol, should in fact be classified as high sensitivity. This assessment follows the agricultural protocol definition and classifies a value of 8 as high sensitivity.

The agricultural sensitivity of the site, as given by the screening tool, is shown in Figure 2. The screening tool sensitivity requires specialist verification because of the limitations of the data sets on which it is based.

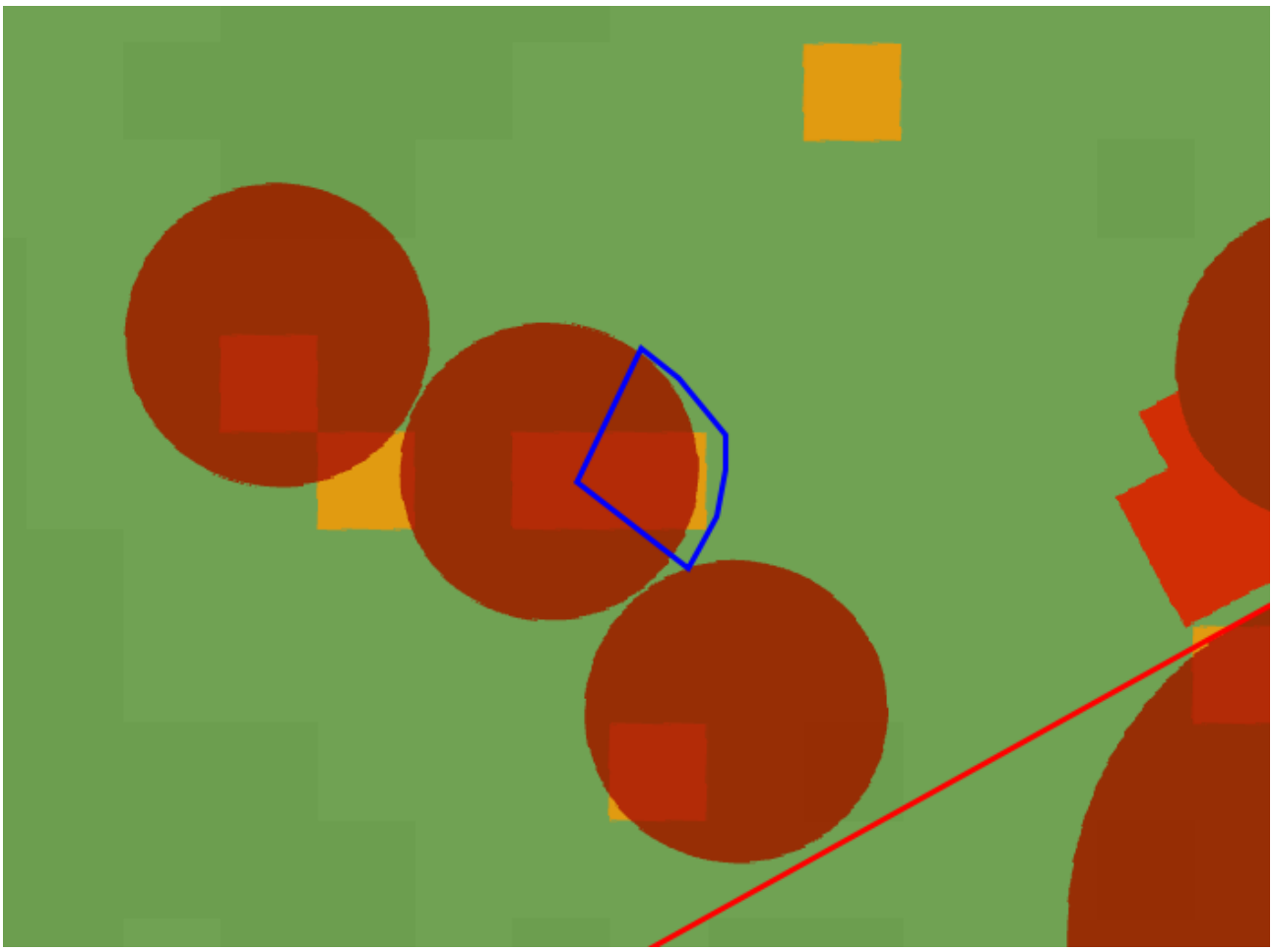

Figure 2. *The mining permit area overlaid on agricultural sensitivity, as classified by the screening tool (green = low; yellow = medium; red = high; dark red = very high). The screening tool's very high sensitivity is confirmed by this assessment.*

This verification of sensitivity addresses both components that determine it, namely cropping status (that is whether the land is currently or has recently been used for crop production) and land capability. The screening tool classifies the assessed area as very high agricultural sensitivity due to its cropping status as pivot irrigated land. This assessment confirms the very high sensitivity rating by the screening tool that is based on the cropping status component of sensitivity.

The classified land capability of the site ranges from 5 to 6. This assessment verifies the classified land capability, based on the assessment of the dryland cropping potential of the site in this report (see Section 8) and therefore verifies it as being of medium agricultural sensitivity in terms of the land capability component of sensitivity.

In conclusion, this assessment confirms the very high sensitivity rating of the site by the screening tool because of the site's assessed agricultural production potential and current agricultural land use.

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 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).

All the important parameters that control the agricultural production potential of the site are given in Table 2. A satellite image map of the development site is given in Figure 3 and photographs of site conditions are shown in Figures 4 to 5.

The site is 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, hot
	Mean Annual Rainfall (mm) (Schulze, 2009)	247
	Reference Crop Evaporation Annual Total (mm) (Schulze, 2009)	1543
	Climate capability classification (Ranges from 3 to 8) (DAFF, 2017)	4 (low-moderate)
Terrain	Terrain type	Hilly sandy deposits on valley floor
	Terrain morphological unit	Mid slope
	Slope gradients (%)	0 to 3
	Altitude (m)	124
	Terrain capability classification (Ranges from 2 to 8) (DAFF, 2017)	6 (moderate-high) to 7 (high)
Soil	Geology (DAFF, 2002)	Quartzitic sandstone with minor grit, conglomerate and shale lenses of the Piekenierskloof Formation; Table Mountain Group, covered by aeolian sand.
	Land type (DAFF, 2002)	Ai68

	Parameter	Value
	Description of the soils	Deep, very light textured (sandy), well-drained, yellow coloured, soils.
	Dominant soil	Clovelly 1100
	Soil capability classification (Ranges from 1 to 8) (DAFF, 2017)	3 (low), but on-site soil rating is 5 out of 10 in Western Cape rating system
	Soil limitations	Low water holding capacity
Land use	Agricultural land use surrounding the site	Pivot irrigated croplands
	Agricultural land use on the site	Pivot irrigated croplands - potatoes
General	Long-term grazing capacity (ha/LSU) (DAFF, 2018)	66
	Land capability classification (Ranges from 1 to 13) (DAFF, 2017)	5 (low) 6 (low-moderate)
	Within Protected Agricultural Area (DALRRD, 2020)	Yes, category B, Irrigation

Figure 3. *Satellite image map of the mining permit area.*

Figure 4. *View of typical site conditions, looking in a south easterly direction down the mining area, with one centre pivot in the background.*

Figure 5. *Test pit showing the Clovelly 1100 soil that occurs across the site.*

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 not considered relevant to this assessment of agricultural impact. What is relevant is simply that the site is suitable for irrigated crop production, regardless of what yields have been, and any loss of potential on the site is therefore a loss of future potential for irrigated crop production. Employment figures are also irrelevant because the site represents a very small proportion of the total farming enterprise that utilises the land and its loss will therefore not affect employment within that enterprise.

There are no existing impacts on the site that are relevant to 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 investigations.

The dryland cropping potential of the site is limited by the arid climate. However, because irrigation is available the site is suitable and utilised for irrigated crop production. The soils are rated 5 out of 10 according to the Western Cape 10-point rating system.

9 IMPACT IDENTIFICATION AND ASSESSMENT

Mining can have both direct and indirect impacts on agricultural potential. Direct impacts are those that change the soil potential on site in terms of growing agricultural crops. Indirect impacts are those that do not directly affect plant growth, but that might impact the ability of farmers in the area to successfully run their agricultural enterprises.

9.1 Indirect impacts

The following potential indirect impacts are identified.

9.1.1 Alteration of the agricultural sense of place

Mining is an intrusive activity of an industrial nature that, during its operational phase, can alter the agricultural sense of place in a farming area. This is only relevant to an agricultural assessment if it affects surrounding agricultural revenue generation. If it does not, it is a social issue that is beyond the relevance and scope of an agricultural impact assessment. In this case, the alteration of agricultural sense of place is not considered likely to affect surrounding agricultural revenue generation.

9.1.2 Dust deposition on surrounding crops

Mining can result in dust on surrounding crops and should therefore be mitigated by means of

damping down surfaces when required. The significance of this impact is low.

9.2 Direct impacts

There is ultimately only ever a single direct agricultural impact of mining and that is a change to the future agricultural production potential of the land. This impact can occur by way of different mechanisms. There will be a temporary cessation of agricultural production for the duration of mining activity on the site, but the potential impact of major concern is a reduction in the long-term agricultural production potential of the site. In this case, this assessment finds that there is unlikely to be a significant long-term reduction in the agricultural production potential of the site provided that effective rehabilitation is implemented. This is because of the deep, sandy soil conditions. Retention of sufficient topsoil will retain the existing agricultural potential of the site.

Mining with well managed and effectively implemented rehabilitation will therefore have an impact of low significance on agricultural resources. However, without effective mitigation, there may be some long-term reduction in soil and production potential and the impact on agricultural resources will therefore be higher.

9.3 Losses in agricultural production and employment

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. It is highly unlikely that there will be any long-term loss of production from the irrigated cropland as a result of mining. The expected losses in employment are also zero.

9.4 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. However, the mining area cannot be re-positioned because no other land is available for mining.

9.5 Long term benefits versus agricultural benefits

The development will provide a resource (sand) that is required in the area without compromising the long-term agricultural production.

9.6 Additional environmental impacts

There are no additional environmental impacts of the proposed development that are relevant to agriculture.

10 RECOMMENDED MITIGATION AND REHABILITATION PLAN

A very important factor affecting the success of rehabilitation, and consequently the significance of direct impacts, is the level of care that is taken to rehabilitate effectively. This is dependent on the level of environmental management of all mining activities that can impact on rehabilitation, both during the mining process and during the rehabilitation phase.

The following is the sequence of recommended rehabilitation steps:

- Prevent dust by means of damping down surfaces when required.
- The upper 30 cm of soil must first be stripped and stockpiled before mining.
- Topsoil is a valuable and essential resource for rehabilitation, and it should therefore be managed carefully to conserve and maintain it throughout the stockpiling and rehabilitation processes.
- Topsoil stockpiles should be protected against losses by water and wind erosion. Stockpiles should be positioned so as not to be vulnerable to erosion by wind and water. The establishment of plants on the stockpiles will help to prevent erosion. Stockpiles should be no more than 2 metres high.
- After mining, any steep slopes must be reduced to a minimum and profiled to blend with the surrounding topography. The entire surface must also be sufficiently smoothed and profiled to allow cultivation
- The stockpiled topsoil must then be evenly spread and smoothed across the entire mining area. The depth should be monitored during spreading to ensure that coverage is adequate (30 cm depth) and even.
- The area should be cropped and fertilized prior to cropping for optimum growth. Any soil chemical deficiencies should be corrected, based on a chemical analysis of the re-spread soil.

11 CONCLUSIONS

This assessment confirms the very high sensitivity rating of the site by the screening tool because of the site's assessed agricultural production potential and current agricultural land use for irrigated crop production.

The proposed mining will not significantly reduce the future agricultural production potential of the site, if effective rehabilitation is implemented. The proposed mine is therefore acceptable, and, from an agricultural impact point of view, it is recommended that it be approved.

The conclusion of this assessment on the acceptability of the proposed development is subject to

the following conditions:

Mine management must be held accountable for well managed and effective implementation of all the recommended rehabilitation steps above. The specific, measurable rehabilitation outcomes against which the effectiveness of completed rehabilitation must be measured are:

5. that the topography and surface have been smoothed sufficiently to allow cultivation;
6. that topsoil has been spread on the surface across the entire mined area to a minimum depth of 300 mm;
7. that there is no visible erosion across the area, or down-slope of it as a result of mining, and that no part of the area has been left unacceptably vulnerable to erosion;
8. that a successful crop has been established across the mined area.

12 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/.

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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. 1991. Soil classification: a taxonomic system for South Africa. Soil and Irrigation Research Institute, Department of Agricultural Development, 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.
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- 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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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: SAND MINING PERMIT APPLICATION ON FARM NUMBER RE/2/199 NEAR CLANWILLIAM, 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:

18 September 2024

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

18 September

Date

7174061-9
WS MADUBELA

Signature of the Commissioner of Oaths

2024-09-18

Date

SUID-AFRIKAANSE POLISIEDIENS
GEMEENSKAPSDIENSSENTRUM
18 SEP 2024
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 2025**

Chairperson

Chief Executive Officer

To verify this certificate scan this code