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SITE SENSITIVITY VERIFICATION
AND
AGRICULTURAL COMPLIANCE STATEMENT
FOR THE PROPOSED WATER TREATMENT WORKS ON ERF RE/557 AND ERF 672, HEIDELBERG, WESTERN CAPE

Report by
Johann Lanz

19 December 2025

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EXECUTIVE SUMMARY

The overall conclusion of this assessment is that the proposed development is acceptable because it leads to no loss of potential cropland and therefore minimal loss of future agricultural production potential.

Although the terrain and soil are factors that constrain potential, the site's location primarily constrains its potential to practically deliver agricultural produce and therefore limits its agricultural production potential. The screening tool classifies the assessed site as being entirely medium agricultural sensitivity. This assessment confirms the medium sensitivity classification by the screening tool because of the site's assessed cropping potential.

An agricultural impact is a change to the future agricultural production potential of land. This is caused by the exclusion of agriculture from the footprint of the development. In this case, the entire development footprint is considered to be below the threshold for needing to be conserved as agricultural production land because of the limitations that make it unsuitable as viable cropland. Furthermore, the development occupies only a small area of land. The proposed development on this land will therefore result in minimal loss of future agricultural production potential. The overall negative agricultural impact of the development (loss of future agricultural production potential) is therefore assessed as being of low significance and as acceptable.

From an agricultural impact point of view, it is recommended that the proposed development be approved. The conclusion of this assessment on the acceptability of the proposed development and the recommendation for its approval is not subject to any conditions.

1 INTRODUCTION

Environmental and change of land use authorisation is being sought for the proposed water treatment works facility on erf RE/557 and ERF 672, Heidelberg, 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, because of the verified medium agricultural sensitivity of the site/footprint (see Section 8), the level of agricultural assessment required by NEMA's agricultural protocol is an Agricultural Compliance Statement.

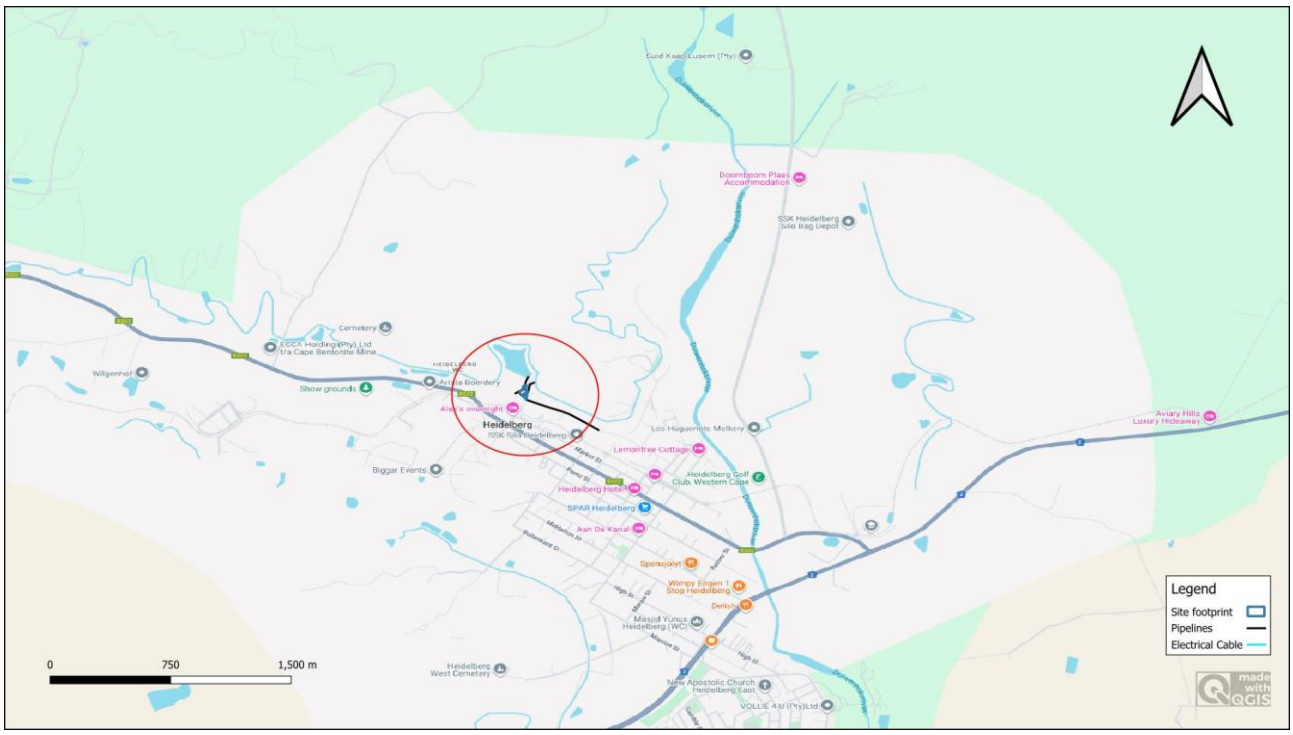

Figure 1. *Locality map of the property boundary (black outline), north* of Heidelberg.

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

> Will the proposed development cause a significant reduction in future 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 7 of this report. Sections 7 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 Hessequa Municipality proposes to construct a Water Treatment Works ("WTW") on the erven 672 and RE/557 just below the southern wall of the Bloekombos Dam at Heidelberg – Western Cape. Water will be pumped from the Bloekombos Dam and treated at the proposed Treatment Works from where it will be pumped along a new pipeline to be laid within the road reserve along Muir Street from where it will connect with existing bulk distribution system in Heidelberg. The proposed development site is accessed off Muir Street.

The expected footprint for the WTW infrastructure will be approximately 0.5ha and consist of the following:

- WTW package plant with maximum capacity of 3 000m³/day (3Ml/day) 100m² footprint
- Surface abstraction by floating pumps from Bloekombos Dam on a variable demand basis along an 60m long x 200mm uPVC pipeline above ground where it goes over and along the dam wall and below ground from the foot of the dam wall to the WTW.
- 3 x Sludge settling ponds (27m x 12m x 1.8m deep with 518m³ capacity each) for backwash water collections and sludge settlement. The proposed cut and fil construction of the three sludge settling lagoon, will have 3m high support embankments with a total 1200m² footprint
- A collector sump and pumps for return flow of supernatant from sludge dams back into Bloekombos dam via the canal to optimise water use. Return flow water to be pumped along an underground 110mm x 187m long uPVC pipe to the canal inlet point at the Dam
- A pump station and 200mm x 650m uPVC pipeline for final water distribution from the WTW into the bulk distribution system in Heidelberg via Muir Street.
- Vehicle parking and materials storage area 260m²
- Stormwater Pipeline of 68m x 450mm concrete class 100D and Sludge dams overflow pipeline 34m x 110uPVC with outlet headwall within non-perennial drainage line.
- Widening and re-alignment of existing 3m wide access road from Muir Street by 1m (84m long x 4m wide), and three 4m access roads total distance 72m to sludge dams.
- A 3 phase 400/230V nominal supply at 50hz from nearest transformer with 55m long underground cable.

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 Compliance Statement, as copied exactly from the

protocol, are listed in the table below, and included, is the place in this report where each is addressed.

Number	Requirement	Where it is addressed
3.	Agricultural Compliance Statement	
3.1.	The compliance statement must be prepared by a soil scientist or agricultural specialist registered with the SACNASP.	Appendix 3
3.2.	The compliance statement must:	
3.2.1.	be applicable to the preferred site and proposed development footprint;	Figure 2
3.2.2.	confirm that the site is of “low” or “medium” sensitivity for agriculture; and	Section 8
3.2.3.	indicate whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site.	Section 9.1
3.3.	The compliance statement must contain, as a minimum, the following information:	
3.3.1.	contact details and relevant experience as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the assessment including a curriculum vitae;	Appendix 1
3.3.2.	a signed statement of independence;	Appendix 2
3.3.3.	a map showing the proposed development footprint (including supporting infrastructure) with a 50m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool;	Figure 6
3.3.4.	confirmation from the specialist that all reasonable measures have been taken through micro-siting to avoid or minimise fragmentation and disturbance of agricultural activities;	Section 11.1
3.3.5.	a substantiated statement from the soil scientist or agricultural specialist on the acceptability, or not, of the proposed development and a recommendation on the approval, or not, of the proposed development;	Section 12
3.3.6.	any conditions to which the statement is subjected;	Section 12
3.3.7.	in the case of a linear activity, confirmation from the agricultural specialist or soil scientist, that in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase;	Section 11.2
3.3.8.	where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr; and	None required
3.3.9.	a description of the assumptions made as well as any uncertainties or gaps in knowledge or data.	Section 5
3.4.	A signed copy of the compliance statement must be appended to the Basic Assessment Report or Environmental Impact Assessment Report.	

4 METHODOLOGY OF STUDY

The assessment was based on an on-site investigation conducted on 10 April 2025. 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 verify agricultural land use and agricultural conditions across the site in order to determine the cropping potential across the site. An assessment of 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

The project may 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), if the property is currently zoned for agriculture.

7 BASELINE DESCRIPTION OF THE AGRO-ECOSYSTEM

The purpose of this section is firstly to present the baseline information that controls the agricultural suitability of the site and then, most importantly, to assess that suitability. All the important parameters that control the agricultural production potential of the site are provided in

Table **1**. A map of the development site is given in **Error! Reference source not found.** and photographs of site conditions are shown in **Error! Reference source not found.** to 5.

***Table 1**: 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)	424
	Reference Crop Evaporation Annual Total (mm) (Schulze, 2009)	1263
	Climate capability classification (out of 9) (DAFF, 2017)	5 (moderate)
Terrain	Terrain type	Hilly terrain with gentle to steep slopes.
	Terrain morphological unit	Mid slope
	Slope gradients (%)	0 to 15
	Altitude (m)	116
	Terrain capability classification (out of 9) (DAFF, 2017)	5 (moderate) to 6 (moderate-high)
Soil	Geology (DAFF, 2002)	Conglomerate, sandstone and mudstone of the Uitenhage Group as well as shale of the Bokkeveld Group, occasionally overlain by Tertiary silcrete.
	Land type (DAFF, 2002)	Dc32
	Description of the soils	Shallow to moderately deep soils with a medium to heavy texture on underlying rock and structured clay.
	Dominant soil forms	Valsrivier, Shortlands, Mispah and Sterkspruit.
	Soil capability classification (out of 9) (DAFF, 2017)	5 (moderate)
	Soil limitations	Drainage
Land use	Agricultural land use in the surrounding area	Croplands
	Agricultural land use on the site	None
General	Long-term grazing capacity (ha/LSU) (DAFF, 2018)	36
	Land capability classification (out of 15) (DAFF, 2017)	6 (low-moderate) to 8 (moderate)
	Within Protected Agricultural Area (DALRRD, 2020)	No

Figure 2. *Map of the site.*

7.1 Assessment of the agricultural production potential

Although there are terrain (steep slopes) and soil (poor drainage) constraints on the site's agricultural production potential, its potential to practically deliver agricultural produce is primarily constrained by other factors. These include:

- Its location leaves it surrounded by non-agricultural land uses and isolated from other farmland.
- the small size of the property (7826m²) in combination with its location makes it impractical to farm.
- the lack of any existing cropping infrastructure or inputs, which would therefore necessitate agricultural investment for crop production, with questionable security of return on that investment.

For these reasons, the site is highly unlikely to ever be viably utilised for agricultural production, and its potential is therefore assessed here as low.

Figure 3. *Typical site conditions.*

Figure 4. *Typical site conditions.*

Figure 5. *Bloekombos dam.*

8 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, as indicated by the only data that is available. 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 three independent criteria, from three independent data sets, which are all indicators of suitability for crop production but are limited and were not designed for this purpose. The three 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 summarised by this author in Table 3.
3. Whether the land is classified as a protected agricultural area (PAA) or not (DALRRD, 2020).

All classified PAAs are, by definition, either high or very high sensitivity.

The limitations for determining cropping suitability based on these data are as follows:

1. The field crop boundary data set used by the screening tool is very outdated
2. Land capability mapping is fairly coarse, modelled data which is not accurate at site scale.
3. PAAs are demarcated broadly, not at a fine scale, and there is therefore much variation of cropping suitability within a PAA. All land within these demarcated areas is not necessarily of sufficient agricultural potential to be suitable for crop production, due to finer scale terrain, soil, and other constraints, and therefore not all land within a PAA necessarily deserves to be classified as more than medium agricultural sensitivity.

These three inputs operate independently, and the screening tool's agricultural sensitivity is determined by whichever of these gives the highest sensitivity rating. The agricultural sensitivity of the site, as classified by the screening tool, is shown in Figure 6.

Table 3: 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>

The true agricultural sensitivity of any land is equivalent to its actual suitability for crop production on the ground, rather than being determined by a parameter that serves as a proxy for crop suitability in a dataset, which is how the screening tool determines sensitivity. The land's suitability for cropping 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, as has been conducted in this assessment, rather than a reliance on data sets that have significant limitations.

Despite the detail in this section above, the determinants of agricultural sensitivity are actually very straightforward and may be summed up as follows. If land is suitable for viable crop production - that is if it has the capability to deliver an above break-even crop yield on a sustainable basis - then it is of high or very high agricultural sensitivity. If it has limitations that prevent it from being able to

deliver an above break-even crop yield on a sustainable basis, then it is of medium or low agricultural sensitivity.

Figure 6. *The assessed area (blue outline) overlaid on agricultural sensitivity, as given by the screening tool. The screening tool's medium sensitivity is confirmed by this assessment.*

The screening tool classifies the assessed site as being entirely medium agricultural sensitivity. As is shown in the previous section, the site is not suitable for viable crop production and its true sensitivity, as assessed on the ground, is therefore medium. This assessment therefore confirms the medium sensitivity classification by the screening tool because of the site's assessed cropping potential.

9 ASSESSMENT OF THE AGRICULTURAL IMPACT

9.1 Impact identification and assessment

It should be noted that an Agricultural Compliance Statement is not required to formally rate agricultural impacts by way of impact assessment tables. 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 below the threshold for needing to be conserved as agricultural production land because of the limitations that make it unsuitable as viable cropland. Furthermore, the development occupies only a small area of land. The proposed development on this land will therefore result in minimal loss of future agricultural production potential. The overall negative agricultural impact of the development (loss of future agricultural production potential) is therefore assessed as being of low significance and as acceptable.

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. However, the agricultural priority should be to conserve future agricultural production, not simply agriculturally zoned land. As has been shown above, the site has no current agricultural production and limited capacity for future agricultural production. Therefore, it is a site which can be used for non-agricultural purposes without a high loss of agricultural production potential. The cumulative agricultural impact of the proposed development is therefore assessed as being of low significance and therefore as acceptable. The development will not have an unacceptable negative impact on the agricultural production capability of the area, and it is therefore recommended, from a cumulative agricultural impact perspective, that the development be approved.

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 exact nature and layout of the different infrastructure within the development site boundary have absolutely no bearing on the significance of agricultural impacts. Any alternative layouts within the boundary will have equal agricultural impact and are assessed as equally acceptable.

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, but this is not significantly different from the low impact of the development, and so from an agricultural impact perspective, there is no preferred alternative between the no-go and the development.

10 MITIGATION

No mitigation measures are required for the protection of agricultural production potential on the site or surrounds because they are not and will not be utilised as agricultural production land.

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 the entire site and surrounds will be non-agricultural, micro-siting will make no material difference to agricultural impacts and disturbance.

11.2 Confirmation of linear activity exclusion

If linear infrastructure that is located on land of high agricultural sensitivity has been given exclusion from requiring an Agricultural Agro-Ecosystem Specialist Assessment because of its linear nature, and therefore only requires an Agricultural Compliance Statement, 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 because this project proposes no linear infrastructure on land that has high agricultural sensitivity.

12 CONCLUSION: AGRICULTURAL COMPLIANCE STATEMENT

The overall conclusion of this assessment is that the proposed development is acceptable because

it leads to no loss of potential cropland and therefore minimal loss of future agricultural production potential.

Although the terrain and soil are factors that constrain potential, the site's location primarily constrains its potential to practically deliver agricultural produce and therefore limits its agricultural production potential. The screening tool classifies the assessed site as being entirely *medium* agricultural sensitivity. This assessment confirms the *medium* sensitivity classification by the screening tool because of the site's assessed cropping potential.

An agricultural impact is a change to the future agricultural production potential of land. This is caused by the exclusion of agriculture from the footprint of the development. In this case, the entire development footprint is considered to be below the threshold for needing to be conserved as agricultural production land because of the limitations that make it unsuitable as viable cropland. Furthermore, the development occupies only a small area of land. The proposed development on this land will therefore result in minimal loss of future agricultural production potential. The overall negative agricultural impact of the development (loss of future agricultural production potential) is therefore assessed as being of low significance and as acceptable.

From an agricultural impact point of view, it is recommended that the proposed development be approved. The conclusion of this assessment on the acceptability of the proposed development and the recommendation for its approval is not subject to any conditions.

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 23 years of running my soil and agricultural consulting business, I have completed more than 1000 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; SRK; Environamics; Royal Haskoning DHV; ABO; Enertrag; WKN-Windcurrent; JG Afrika; Mainstream; Redcap; G7; Mulilo; and Tiptrans. 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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Department:
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Private Bag X447, Pretoria, 0001, Environment House, 473 Steve Biko Road, Pretoria, 0002 Tel: +27 12 399 9000, Fax: +27 86 625 1042

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: AGRICULTURAL COMPLIANCE STATEMENT FOR THE PROPOSED WATER TREATMENT WORKS ON ERF RE/557 AND ERF 672, HEIDELBERG 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:	2 Roeland Terrace, CAPE TOWN, 8001
Postal address:	Postnet Suite #500, Private Bag X16 Constantia, 7848
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:

3 December 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

03/12/2025

Date

7175747-3

T MAKALIMA

Signature of the Commissioner of Oaths

Date

SUID-AFRIKAANSE POLISIEDIENS
GEMEENSKAPSDIENSSENTRUM
03 DEC 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

To verify this certificate scan this code

APPENDIX 4: SOIL DATA

Land type	Soil series (forms)	Depth (mm)	Clay % A horizon	Clay % B horizon	Depth limiting layer	% of land type
Dc32	Va	400 - 450	15 - 35	40 > 55	vr,ca	18.3
Dc32	Sd	500 - 700	20 - 35	35 - 55	R	14.0
Dc32	Ms	400 - 500	15 - 35		R,ka	13.6
Dc32	Ss	350 - 400	15 - 35	> 40	pr	11.3
Dc32	Va	400 - 450	15 - 35	40 > 55	vp,ca	10.7
Dc32	Ss	350 - 400	15 - 35	> 40	pr	8.8
Dc32	T					7.5
Dc32	Hu	1000 - 1100	20 - 35	20 - 35	R	6.0
Dc32	Gs, Ms	300 - 450	15 - 35	20 - 35	so,R	3.0
Dc32	Oa	> 1200	6 - 15	6 - 15		1.9
Dc32	Oa	> 1200	6 - 15	6 - 15		1.4
Dc32	Hu	1000 - 1100	20 - 35	20 - 35	R	1.3
Dc32	Du, Fw	> 1200	6 - 15			1.1
Dc32	Va	400 - 450	15 - 35	40 > 55	vp,ca	0.4
Dc32	Va	400 - 450	15 - 35	40 > 55	vr,ca	0.2
Dc32	Ss	350 - 400	15 - 35	> 40	pr	0.2
Dc32	Ss	350 - 400	15 - 35	> 40	pr	0.1

APPENDIX 5: SITE DEVELOPMENT PLAN

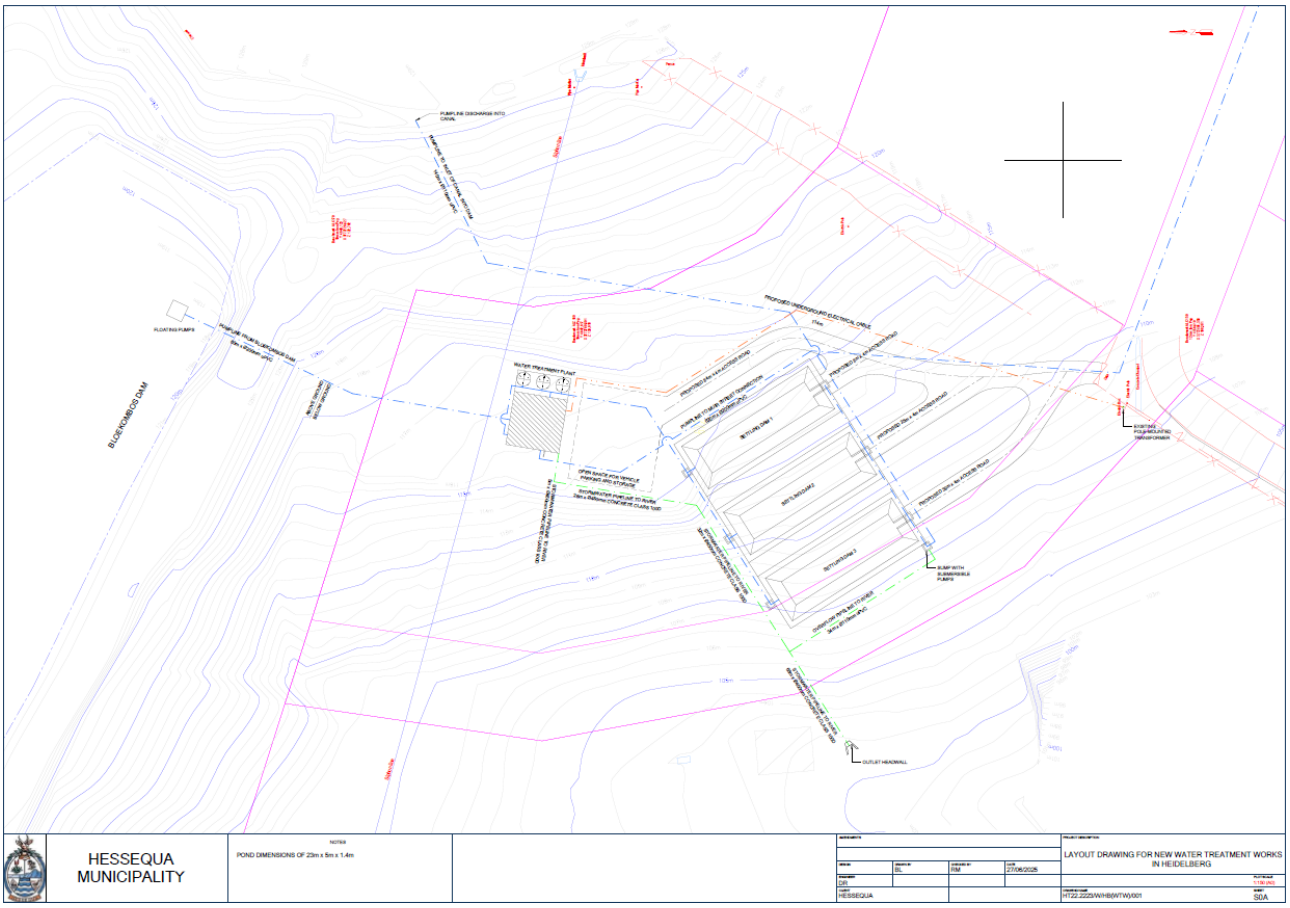

Figure 6: Site development plan