

**Environmental Confirming Statement - Agriculture  
for  
the proposed development of the Leeudoringstad 132kV powerline  
near Leeudoringstad in the North West Province**

This assessment is done in terms of the *Standard for the Development and Expansion of Power Lines and Substations within Identified Geographical Areas*. The requirements of a Confirming Statement for agriculture are stipulated in Appendix B of the Standard. Each requirement for agriculture (B.5) is given below in italics and addressed directly below it.

***The confirming statement must be prepared by a soil scientist or agricultural specialist registered with the SACNASP,***

See SACNASP registration certificate in appendix below.

***and must contain, as a minimum, the following information:***

***36. The duration, date and season of the site verification inspection and walk through as well as the relevance of the season to the outcome of the confirming statement;***

An on-site site verification inspection was conducted on 2 September 2022 (spring). An assessment of long-term agricultural potential is in no way affected by the season in which the assessment is made, and therefore the fact that the assessment was done in spring has no bearing on its results. Note that in the case of a corridor in a low cropping potential environment like the one being assessed, the only verification that is necessary is the presence of croplands within the corridor. Note also that in terms of Chapter 2, paragraph 5 of the Standard, a walk through is not required for the entire footprint, but rather for areas that need verification in the expert view of the specialist.

***37. Confirmation that the affected environment within the preliminary corridor, as it pertains to agricultural resources is low to medium, based on desktop information, site verification and walk through information;***

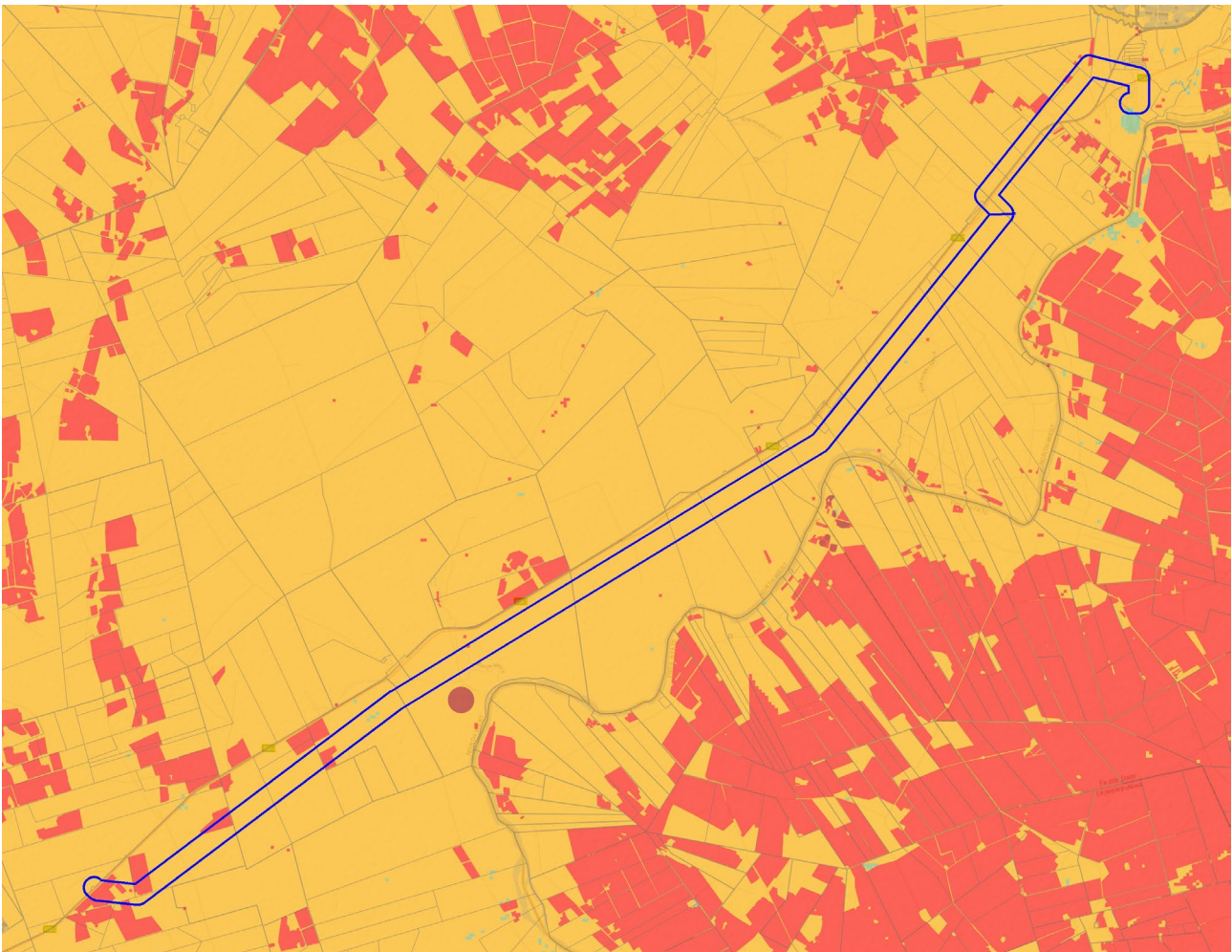
It is hereby confirmed, based on desktop information, site verification and walk through information, that the agricultural sensitivity of almost the entire corridor is medium and that where it is not (croplands – see Figures 2 and 3), the assessed sensitivity still complies fully with the requirements of the Standard (see specifically paragraphs 38, 40, 42, 44 and the conclusion below).

**38. Identification of agricultural resource areas to be avoided within the preliminary corridor, including buffers;**

In terms of agricultural impact, there are no areas within the corridor that need to be avoided by the power line route. The areas of cropland shown in Figures 2 and 3 are assessed as agricultural resource areas that must be avoided by the pylons, where possible. The mitigation specified by the Standard if avoidance of pylons within croplands is not possible (paragraphs A.6.12 to A.6.14), has been specified in this statement for inclusion in the site specific EMPr. No buffers are applicable.

**39. An agricultural resources sensitivity map generated by the screening tool and enhanced by any relevant additional information, overlaid with the (i.e. pylon placement and power line route, as well as supporting infrastructure);**

The agricultural resources sensitivity maps are provided in Figures 1, 2 and 3.



**Figure 1.** The proposed corridor overlaid on agricultural sensitivity, as given by the screening tool (green = low; yellow = medium; red = high; dark red = very high). Note that the verified sensitivity is different to what is shown in this figure from the screening tool. The verified sensitivity is shown in figures 2 and 3.



**Figure 2.** Satellite image map of the corridor showing the only area of cropland (green outlines) verified to occur within it, approximately a third of the way down from the northern end.

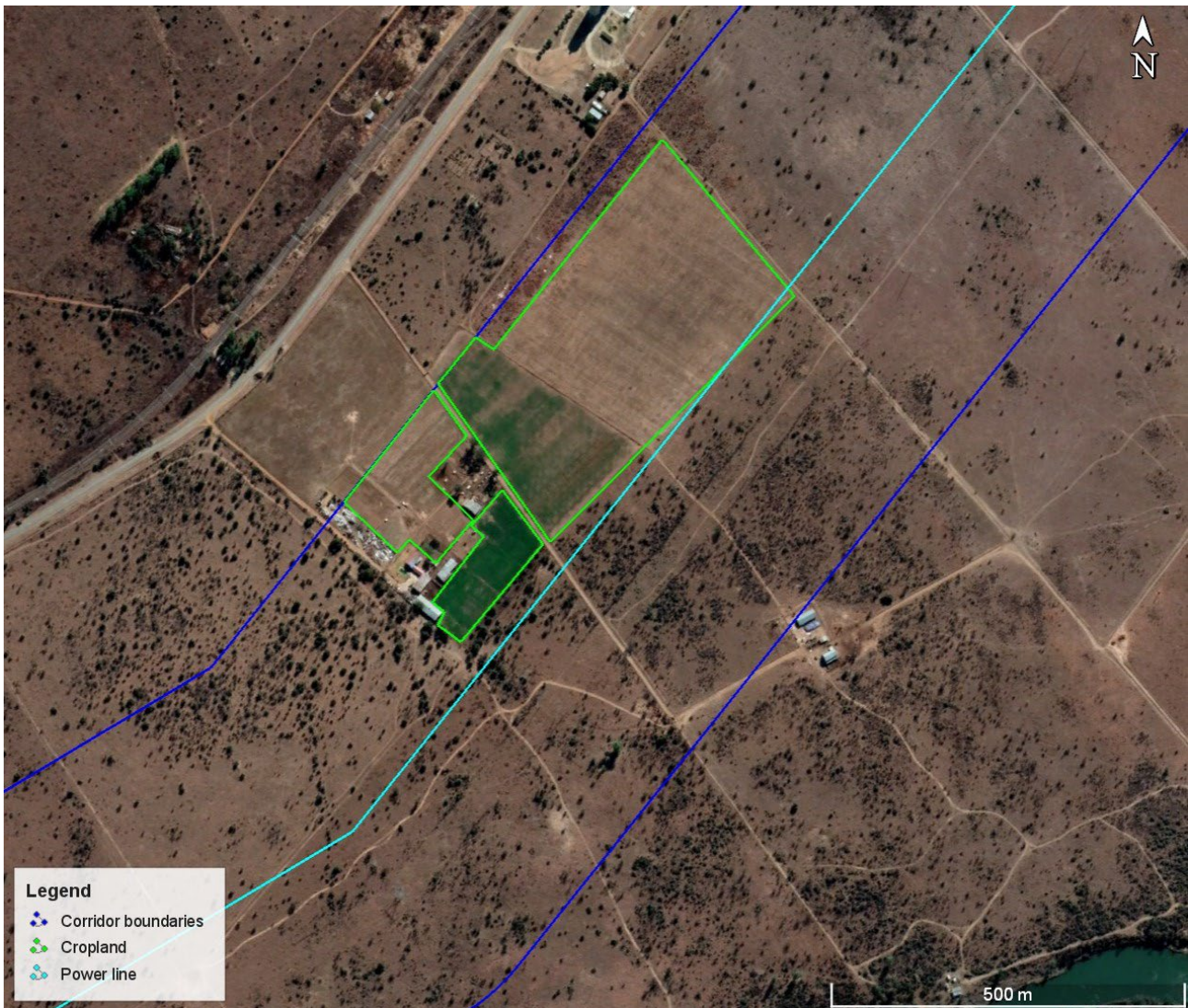
**40. A description on how the identified environmental sensitivity, as it pertains to agricultural resources, have been considered in determining the proposed route;**

The proposed corridor minimizes impact on croplands because it avoids them almost entirely. Where the corridor cannot avoid them, croplands can, almost certainly, be spanned by the power lines so that pylons are not located within the croplands.

**41. A description on how the identified engineering constraints, as it pertains to agricultural resources, have been considered in determining the proposed route;**

Engineering constraints do not pertain to agricultural resources.





**Figure 3.** More detailed satellite image map of the only cropland (green outlines) verified to occur within the corridor. The power line route is permitted, in terms of the Standard, to cross this cropland, but pylon locations must adhere to the site specific EMP, referred to in point number 44, below.

**42. A description of the implementation of the mitigation hierarchy in order to determine the proposed route and/or substation location; and confirmation that all reasonable measures have been considered in the micro-siting of the development to minimise fragmentation and disturbance of agricultural activities;**

The proposed route, substation location, and pylon locations follow the hierarchy exactly – avoid cropland where possible, if not, minimize impact on cropland and rehabilitate any construction disturbance. Prioritising avoidance and impact minimisation in this way also ensures that all reasonable measures have been considered in the micro-siting of the development to minimise fragmentation and disturbance of agricultural activities.

**43. How the inputs of I&APs were considered when determining the final pre-negotiated route and/or substation location; and**

Inputs of I&APs have not been received yet.

**44. A statement confirming that:**

- a. impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of impacts and risks; or***
- b. where required specific impact management outcomes and actions are required and have been provided as part of the site specific EMPr.***

Impact management actions as contained in the pre-approved Generic EMPr template are sufficient for the avoidance, management and mitigation of most impacts and risks. However, the following, additional specific impact management outcomes and actions are required for inclusion in the site specific EMPr:

Pylons must avoid being placed within croplands, wherever possible. If avoidance is not possible:

- Any cropland disturbed by construction (obviously excluding the land occupied by the pylon base itself), must be returned to the pre-disturbance land capability within two years of the construction.
- Pylon placements must minimize fragmentation of and disturbance to agricultural activities.
- Self-supporting lattice or monopole structures are to be used in crop fields.

**Conclusion**

It is hereby confirmed, based on desktop information, site verification and walk through information, that the agricultural sensitivity of the entire corridor complies fully with the requirements of the Standard. There are no areas within the corridor that need to be avoided by the power line route. The mitigation required by the Standard, specifically for locations where avoidance of the cropland by the pylons may not be possible (paragraphs A.6.12 to A.6.14), has been specified in this statement for inclusion in the site specific EMPr.

## 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 Consultants 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*.

Specialist Company Name:	No company name – sole proprietor		
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#### DECLARATION BY THE SPECIALIST

I, **Johann Lanz**, declare that

- I act as the independent specialist in this Standard registration process;
- I have performed the work relating to the specialist assessment and/or route or substation location confirmation in an objective manner;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist input and confirming statement relevant to this request for registration, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, 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 proponent all material information in my possession that reasonably has or may have the potential of influencing compliance with the Standards registration process; and
- all the particulars furnished by me in this form are true and correct.

Signature of the specialist:



Name of company: **Johann Lanz – soil scientist (sole proprietor)**

Date: **25 March 2023**



# 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 2024**



Chairperson

Chief Executive Officer

