

**Site sensitivity verification  
and Agricultural Compliance Statement  
for the proposed Kiboko Landing Strip  
near Herbertsdale, Western Cape**

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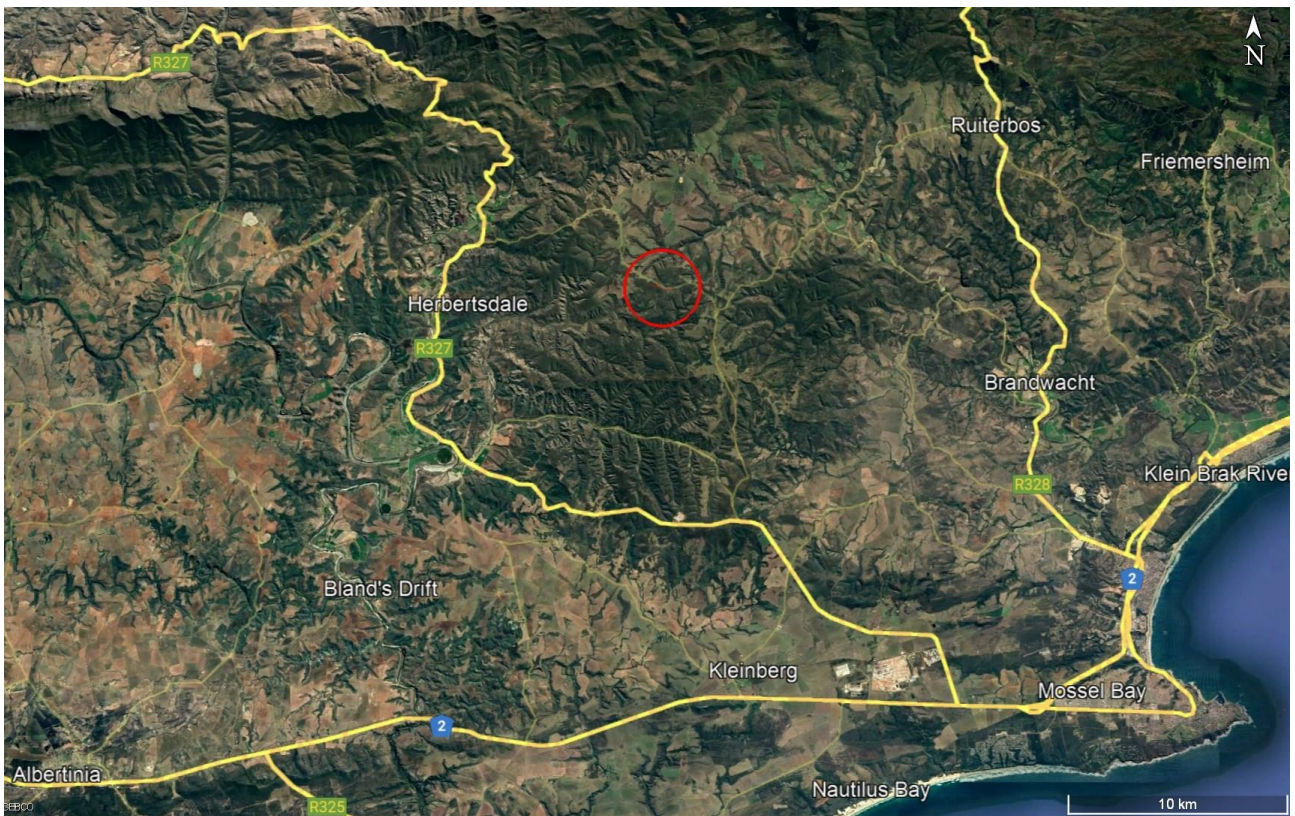
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**1 Introduction**

Environmental authorisation is being sought for the above development (see locality 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 verified low sensitivity of the site (see Section 3), the required level of agricultural assessment is an Agricultural Compliance Statement.

Johann Lanz was appointed as an independent agricultural specialist to conduct the agricultural assessment. The objective and focus of an agricultural assessment are to assess whether or not the agricultural impact of the proposed development will be acceptable, and based on this, to make a recommendation on whether or not it should be approved.

The purpose of the agricultural component in the environmental assessment process is to preserve agricultural production potential by ensuring that development does not unnecessarily exclude existing or potential agricultural production from land, or unnecessarily impact agricultural land to the extent that its production potential is reduced. The primary focus is on preservation of the agricultural production potential of scarce, arable land.



**Figure 1.** The locality of the proposed landing strip (at the centre of the red circle) east of Herbertsdale.

## 2 Project description

The project is a landing strip and associated infrastructure. The airstrip will be a rolled (compacted) grass surface. The compacted grass runway will be created by regularly mowing the existing vegetation and then compacted with a heavy roller until the surface complies with the required standards. The airstrip will be 1154.73m long and 20m wide and covers an area of 2.3ha. A 50m safe zone covering an area of approximately 12ha will be brushcut around the runway to allow pilots to observe any obstacles such as animals that might be moving towards the runway. The associated infrastructure comprises a compacted grass taxiway, turning circle and apron/parking as well as a hanger and semi-permanent (corrugated iron) water reservoir with a 125 000 litre capacity. The total footprint of the development excluding the buffer area / safe zone will be approximately 2.8 hectares.

## 3 Site sensitivity verification

The screening tool sensitivity of the site is shown in Figure 2. The screening tool classifies agricultural sensitivity according to only two independent criteria – the land capability rating and whether the land is cropland or not. The classification of parts of the site as high agricultural sensitivity (red in Figure 2) is because those parts are classified as cropland in the data set used by the screening tool. However that data set is outdated and not accurate. All land across the site is no longer used as cropland and has not been cropped for at least the last eighteen years according

to the historical imagery available on Google Earth. This land should not, therefore, still be classified as cropland and allocated high sensitivity because of it. The classified land capability of the site is predominantly 5 to 6, which translates to a low agricultural sensitivity. Due to the site's limited agricultural production potential (see Section 4), the appropriate sensitivity for the entire site is assessed here as **LOW** and the higher sensitivity rating of parts of the site by the screening tool is therefore **refuted**.



**Figure 2.** The footprint of the proposed development (blue outline) overlaid on agricultural sensitivity, as given by the screening tool (green = low; yellow = medium; red = high; dark red = very high). Note that the screening tool sensitivity is disputed by this assessment.

#### 4 Baseline agricultural environment

The purpose of this section of the report is to present the baseline information that controls the agricultural production potential of the site, which in turn determines the significance of the agricultural impact upon it.

A satellite image map of the development is given in Figure 3.

The site has a winter rainfall with an annual mean of approximately 374 mm and a mean annual



evaporation of approximately 1152 mm (Schulze, 2009). The site is situated on the coastal plateau on fairly flat land at an altitude of 370 m. The geology is tertiary terrace gravel and silcrete. The site falls within the Gb20 land type. The soils are predominantly fairly shallow, sandy soils on underlying rock or clay of the Houwhoek, Sterkspruit, and Estcourt soil forms. The cropping potential of the site is limited by the combination of a marginal climate and soils with limited water holding capacity. Furthermore, the location of the site within a game reserve effectively precludes the use of the land for agricultural production.



**Figure 3.** *Satellite image map of the proposed development (red outline).*

## **5 Assessment of agricultural impact**

An agricultural impact is a temporary or permanent change to the future agricultural production potential of land. The significance of the agricultural impact is directly proportional to the extent of the change in production potential, which in turn, when it involves a loss of agricultural land to development, is a function of two things: the amount of land that will be lost and the production potential of the land that will be lost. The total size of the proposed footprint is approximately 2.8 hectares. The production potential of the land is severely limited by climate and soil constraints as well as by its use as a game reserve. Although the development will occupy land that is currently

zoned for agriculture, it will lead to no loss of current production or agricultural employment and to negligible loss of future agricultural production potential. The agricultural impact of the proposed development is therefore assessed as being of very low significance.

## **6 Agricultural Compliance Statement**

The agricultural impact of the proposed development is assessed as being acceptable because it results in no, or at most negligible, loss of future agricultural production potential. From an agricultural impact point of view, it is recommended that the development be approved.

It is hereby confirmed that all reasonable measures have been taken through micro-siting to avoid or minimise fragmentation and disturbance of both actual and potential agricultural activities. There are no Environmental Management Programme inputs required for the protection of agricultural potential on the site.

The conclusion of this assessment on the acceptability of the proposed development and the recommendation for its approval is not subject to any conditions. In completing this statement, no assumptions have been made and there are no uncertainties or gaps in knowledge or data that are relevant to it. No further agricultural assessment of any kind is required for this application.

The required relevant experience, proving the specialist's fitness for completing this assessment, is given in the curriculum vitae below.

A handwritten signature in black ink, appearing to read 'J. Lanz', with a stylized flourish above the name.

J. Lanz (Pr. Sci.Nat.)

13 April 2023

## 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 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*.

## Appendix 2: Declaration of the specialist

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

I, **Johann Lanz**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that I:

- in terms of the general requirement to be independent:
  - other than fair remuneration for work performed/to be performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
  - ~~• am not independent, but another specialist that meets the general requirements set out in Regulation 13 have been appointed to review my work (Note: a declaration by the review specialist must be submitted);~~
- in terms of the remainder of the general requirements for a specialist, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- have disclosed/will disclose, to the applicant, the Department and interested and affected parties, all material information that have or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- am aware that a false declaration is an offence in terms of regulation 48 of the 2014 NEMA EIA Regulations.

Signature of the specialist:



Date: **13 April 2023**

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



**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

