TRANSNET

APPENDIX 9: Agriculture Compliance Statement

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

SCOPING & ENVIRONMENTAL IMPACT ASSESSMENT (S&EIA) FOR THE PROPOSED 2 MEGALITRES PER DAY (MLD) SOLAR POWERED SEAWATER DESALINATION PLANT IN THE PORT OF EAST LONDON, BUFFALO CITY METROPOLITAN MUNICIPALITY, EASTERN CAPE PROVINCE, BY TRANSNET NATIONAL PORTS AUTHORITY

DFFE Pre-Application Reference Number: 2026-04-0038

July 2026

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SITE SENSITIVITY VERIFICATION
AND
AGRICULTURAL COMPLIANCE STATEMENT
FOR THE PROPOSED SOLAR POWERED DESALINATION PLANT WITHIN THE PORT OF EAST LONDON,
EASTERN CAPE PROVINCE

Report by
Johann Lanz & David Lakey

6 May 2026

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EXECUTIVE SUMMARY

The overall conclusion of this assessment is that the proposed development is acceptable because it leads to zero loss of future agricultural production potential.

Although the climate and terrain suitability may allow for viable crop production, other factors constrain the potential of the site to practically deliver agricultural produce and therefore limit its agricultural production potential. This is because its location, totally surrounded by urbanisation and the development is located within the Port of East London. This leaves it isolated from any other farmland and makes any agricultural activity totally impractical. For these reasons, the site will never be viably utilised for agricultural production and its potential is therefore assessed here as non-existent.

The screening tool classifies the assessed site as ranging from medium to very high agricultural sensitivity and therefore classifies the overall site sensitivity, which is the highest sensitivity encountered across the site, as high. The high sensitivity classification is due to its land capability rating. However, the site is not at all suitable for viable crop production and its true sensitivity, as assessed on the ground, is therefore medium. This assessment therefore disputes the sensitivity classification of the site by the screening tool and verifies the entire site as being of medium agricultural sensitivity because of its assessed cropping potential.

An agricultural impact must by definition cause a change to the future agricultural production potential of land. If there is no change, there is no impact. Because the site has no agricultural production potential due to the limitations of its location, the occupation of the site by the development cannot change its agricultural production potential. The development will therefore have zero agricultural impact and is therefore assessed 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 Port of East London solar desalination plants within the Port of East London, Eastern 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 verified medium agricultural sensitivity of the development footprint (see Section 8), the level of agricultural assessment required by the protocol is an Agricultural Compliance Statement.

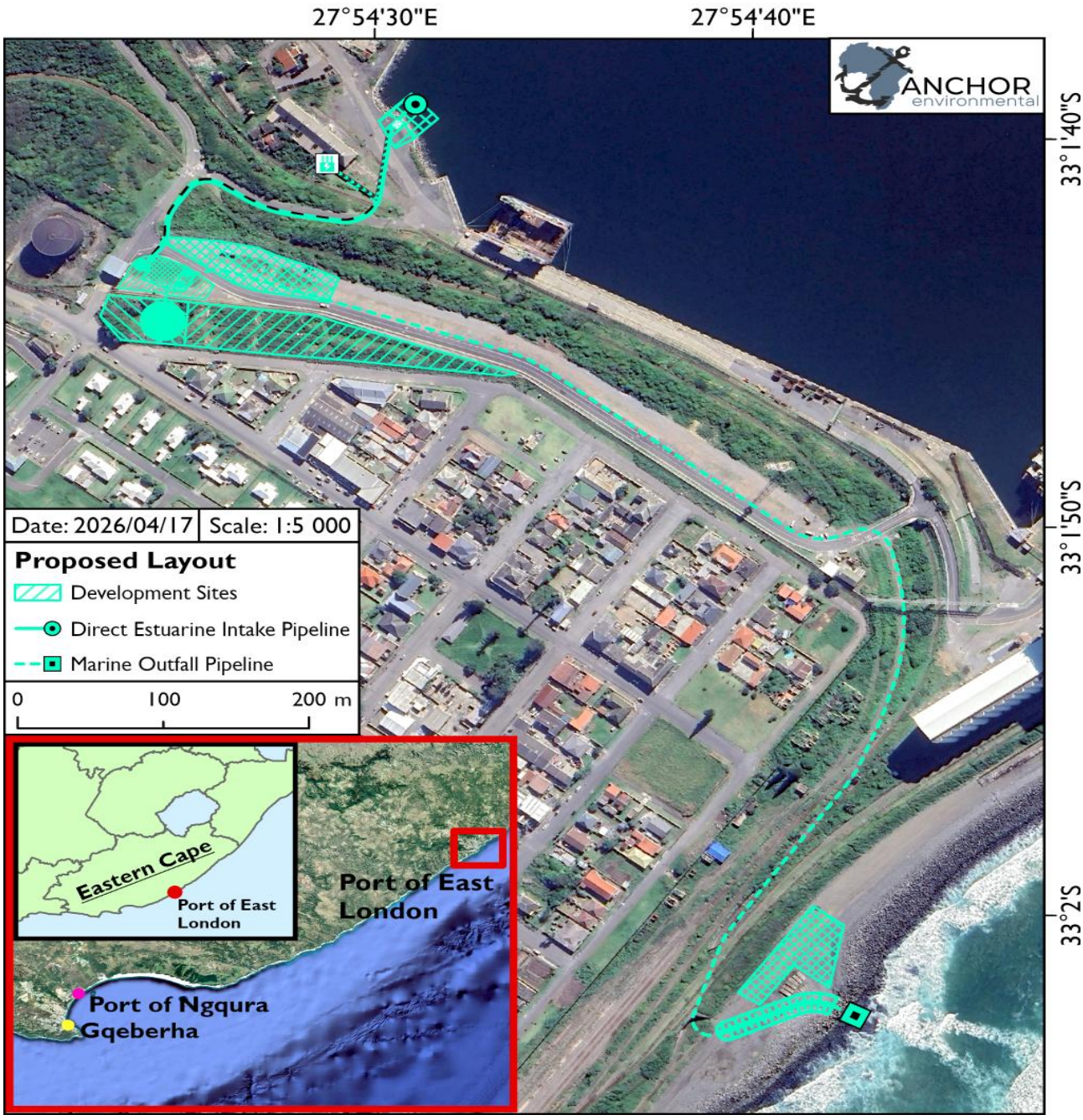

Figure 1. Locality map of the site within the port of East London.

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

TNPA is applying for Environmental Authorisation (EA) for the construction and operation of a reverse osmosis (RO) desalination plant with the purpose of producing fresh potable water from saltwater, which has been abstracted from the estuarine/ marine environment. The proposed development will be situated within the Port of East London, in the Buffalo City Metropolitan Municipality, Eastern Cape Province.

The entire development is located within the urban edge, except for the section of the outfall pipeline that extends onto the dolosse. Note that the area is not situated within a delineated Coastal Public Property (CPP) as no CPP boundary exists within ports as confirmed by the Department of Forestry, Fisheries and the Environment (DFFE): Oceans and Coasts.

Approximately 5 500 cubic meters (m^3) (5.5 Megalitres (ML) or 5.5 million litres) of saline water will be abstracted daily from the Buffalo River Estuary and desalinated (salt removed) at the RO plant to produce potable water (freshwater), which meets SANS 241 standards. Some of the water will be stored in a 1000 cubic metres (1 ML) freshwater reservoir. During the initial stages of the project, freshwater production will be approximately 500 cubic metres per day (0.5 ML per day (MLD)) and will gradually increase as the project advances. At full capacity, the plant will produce 2 000 cubic metres (2 MLD / two million litres). This water will be used to support port operations and reduce dependence on municipal water supplies. The desalination plant will be powered by a hybrid system that uses both solar energy and municipal grid electricity with the former being primary. If more electricity is generated than needed, batteries might be used in the future to store excess electricity in containers housed at the RO plant site. Brine, a byproduct of desalination with elevated salt concentrations, will be discharged via a pipeline to a marine outfall where rapid dilution with ocean water is expected. It should be noted that brine is classified as effluent and may contain traces of chemicals used during the desalination process (such as cleaning agents and anti-scalants), but at

highly periodic and very dilute concentrations.

The main project components are outlined below, with their locations depicted in Figure 2 and Figure 3.

Water Intake Site/ associated structures and buildings:

o Direct intake and pipeline:

- For water abstraction from the Buffalo River Estuary: Stretches from intake point in estuary to raw water holding tank at the RO plant site.
- Intake point in the estuary: Approximately ~13–18 m from the edge of existing wall and 1 m below surface
- Pipe made from High-Density Polyethylene (HDPE); Diameter: 315 mm.
- Intake head will include a strainer barrier to prevent fish and other organisms from being drawn into the pipe.

o Pontoon system linked to the pump house and extends to the estuary intake: A floating platform that supports the pipeline and accommodates the intake structure within the estuary.

o Parking area.

o Pump house building and foundation.

• **Desalination Plant Site:**

o RO Desalination plant building which includes (list not extensive):

- General storage room;
- Restrooms;
- Control/operations room with switchboard and computers;
- Feed pumps and pre-treatment filters;
- A chemical storage room/container for Clean-in-place (CIP) and pretreatment chemicals;
- Battery storage container (batteries only potentially required to store excess electricity, if generated by the solar plant).
- Reverse osmosis pumps and energy recovery devices; and
- Two trains of RO membranes.

o A 60 m^3 brine holding/storage tank (brine “treatment” tank).

o A 80 m^3 ultrafiltration tank.

o A 200 m^3 raw water holding tank.

o Permeate pipeline: Pipeline that transports desalinated freshwater from the RO plant to reservoir.

o Vehicle Access and Parking area

o Mini substation/ Transformer: Situated next to RO plant building close to Motor Control Centre housed inside. Connected to proposed 11kV cable line, which connects to the existing substation near the intake.

o Freshwater production will gradually be scaled up as project progresses:

- Initial phase: The plant will produce 500 m³ (0.5MLD) of freshwater per day.
- Full Capacity: The plant will produce 2 000 m³ of freshwater per day (2MLD).

• **Solar Plant Site:**

o 1000 m³ (1 ML) freshwater reservoir and booster pumps.

o Solar panels and foundations. Estimated output of 525 kWp (kilowatt peak), generating direct current (DC) at up to 1 kV supplied directly to RO plant.

• **Marine Outfall Site/ Infrastructure:**

o Brine discharge pipeline passing over breakwater

o Internal Diameter: 200 mm; Outlet diameter: 150mm

• **Municipal Grid Connection:**

o New low-voltage cable line from existing substation to intake pump house. Will power the pumphouse with electricity from the grid (will distribute 230-400V)

o New 11 kV underground cable line line: Will run from existing substation to RO plant to supply power for specific low-voltage components and to supply backup electricity when needed (will distribute 11kV). Connects to newly installed mini substation/ transformer next to RO plant building. Will be installed instead of the previously proposed overhead electrical transmission line.

• **Site Camps:**

o Across the road from the desalination plant on a disturbed parking/ gravel area.

o Close to the marine outfall next to the port breakwater.

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.

Table 1: Reporting requirements as per NEMA's Agricultural Protocol

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 5
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	None required

	monitoring requirements for inclusion in the EMPr; and	
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 a verification of the lack of current agricultural land use on the site and the location of the site within a non-agricultural area. No other information is relevant to assessing the agricultural production potential of the site because the location precludes viable agricultural production regardless of climate, soil, and terrain.

5 ASSUMPTIONS, UNCERTAINTIES OR GAPS IN KNOWLEDGE OR DATA

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

6 APPLICABLE LEGISLATION AND PERMIT REQUIREMENTS

This section identifies all applicable agricultural legislation and permit requirements over and above what is required in terms of NEMA. The project should not require any agricultural approval because the property is not zoned for agricultural use.

7 BASELINE DESCRIPTION OF THE AGRO-ECOSYSTEM

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

All the important parameters that control the agricultural production potential of the site are presented in Table 2. Soil data are provided in Appendix 4. A layout map of the development is shown in Figure 2.

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)	Temperate, no dry season, hot summer
	Mean Annual Rainfall (mm) (Schulze, 2009)	780
	Reference Crop Evaporation Annual Total (mm) (Schulze, 2009)	831.3
	Climate capability classification (out of 9) (DAFF, 2017)	7 (high)
Terrain	Terrain type	Coastal harbour
	Terrain morphological unit	Valley Bottom
	Slope gradients (%)	0
	Altitude (m)	25
	Terrain capability classification (out of 9) (DAFF, 2017)	4 (low-moderate) to 6 (moderate-high)
Soil	Geology (DAFF, 2002)	Mainly grey mudstone, shale and sandstone of the Balfour Formation, Beaufort Group with dolerite.
	Land type (DAFF, 2002)	Db184
	Description of the soils	Very shallow to shallow, light to heavy soils with underlying clay.
	Dominant soil forms	Kroonstad, Escourt, Catrief
	Soil capability classification (out of 9) (DAFF, 2017)	4 (low-moderate)
	Soil limitations	Limited drainage, Limited soil depth
Land use	Agricultural land use in the surrounding area	None
	Agricultural land use on the site	None
General	Long-term grazing capacity (ha/LSU) (DAFF, 2018)	6
	Land capability classification (out of 15) (DAFF, 2017)	7 (low-moderate) to 9 (moderate-high)
	Within Protected Agricultural Area (DALRRD, 2020)	No
	Within Renewable Energy Development Zone (REDZ)	No

7.1 Assessment of the agricultural production potential

This assessment of the agricultural production potential of the site is based on an integration of the information in the site parameters table above.

Although the climate and terrain suitability may allow for viable crop production, other factors constrain the potential of the site to practically deliver agricultural produce and therefore limit its agricultural production potential. This is because its location, totally surrounded by urbanisation and the development is located within the Port of East London. This leaves it isolated from any other farmland and makes any agricultural activity totally impractical. For these reasons, the site will never be viable utilised for agricultural production and its potential is therefore assessed here as non-existent.

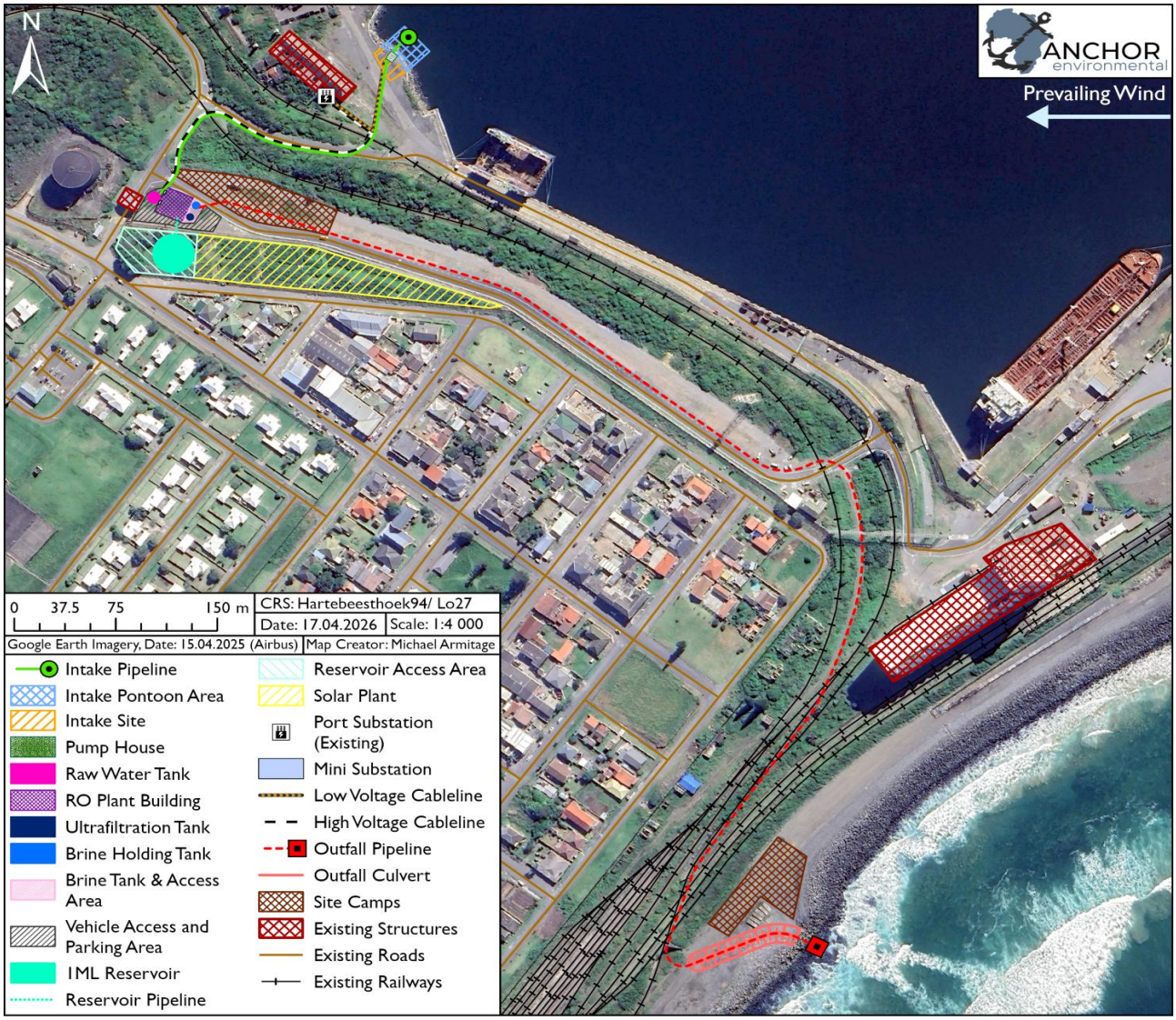

Figure 2. Layout map with the development components.

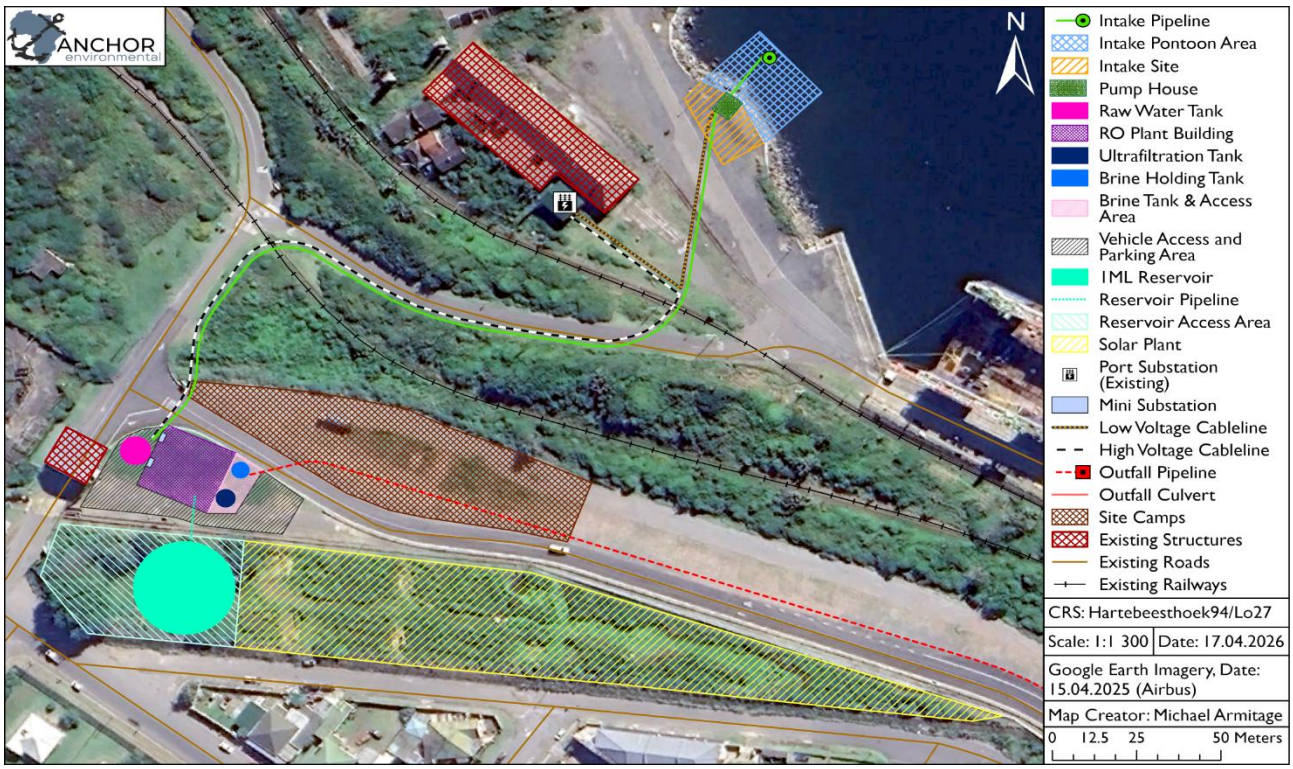

Figure 3. Detailed map of the components of the intake and solar plant.

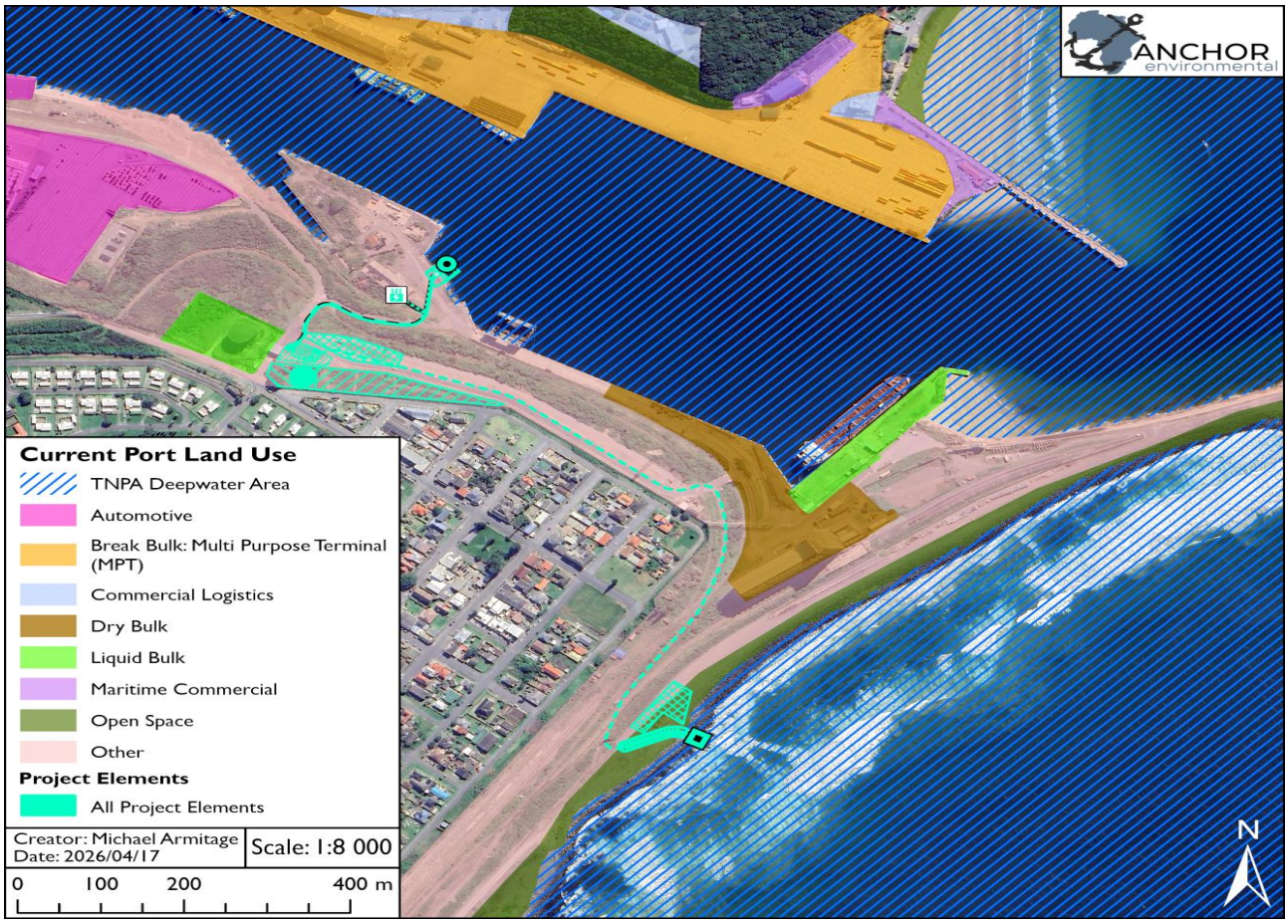

Figure 4. Current land use within the Port of East London.

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 simply 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 3.

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.

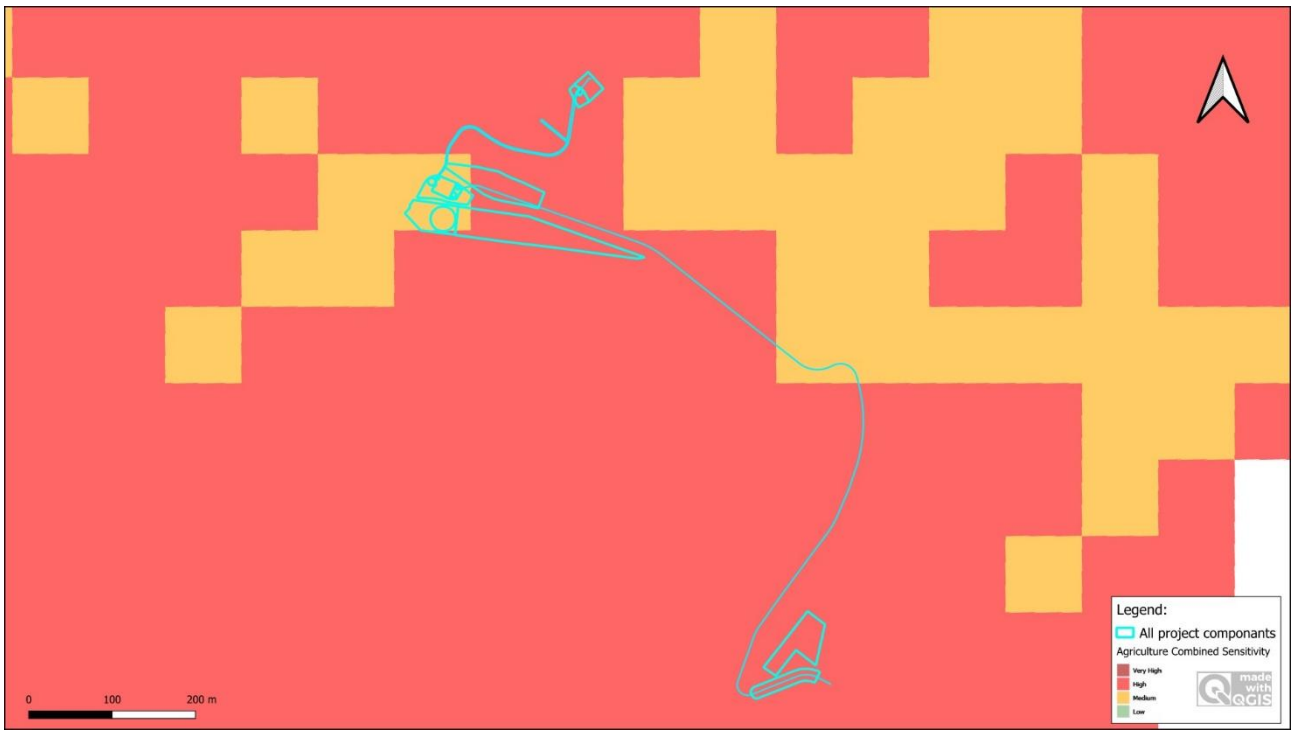

Figure 5. The development footprint overlaid on agricultural sensitivity, as classified by the screening tool.

The screening tool classifies the assessed site as ranging from medium to high agricultural sensitivity and therefore classifies the overall site sensitivity, which is the highest sensitivity encountered across the site, as high. The high sensitivity classification is due to the land being classified as high sensitivity because of its land capability rating (see Table 3). However, as shown in Section 7, the site is not at all suitable for viable crop production and its true sensitivity, as assessed on the ground, is therefore medium. This assessment therefore disputes the sensitivity classification of the site by the screening tool and verifies the entire site as being of medium agricultural sensitivity because of its assessed cropping potential. Note that there is no real difference between low and medium agricultural sensitivity and whether land is low or medium, has no implications for agricultural impact.

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.

An agricultural impact must by definition cause a change to the future agricultural production potential of land. If there is no change, there is no impact. Because the site has no agricultural production potential due to the limitations of its location, the occupation of the site by the development cannot change its agricultural production potential. The development will therefore

have zero agricultural impact and is therefore assessed 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 no capacity for future agricultural production. Therefore, it is a site which can be used for non-agricultural purposes without any 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. Because there is no agriculture within or surrounding the assessed site, the development layout within it will make absolutely no difference to agricultural impacts. Any alternative layouts within the same assessed site 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 different from the zero 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

The most important and effective mitigation of agricultural impacts for any development is avoidance of viable croplands. This development has already applied this mitigation by selecting a site on which there are not viable croplands. No mitigation measures are required for the protection

of agricultural production potential on the site because the development poses no degradation risk to agricultural resources.

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 site and surrounds are not used for agriculture, micro-siting will make no material difference to agricultural impacts and disturbance.

11.2 Confirmation of linear activity exclusion

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

12 CONCLUSION: AGRICULTURAL COMPLIANCE STATEMENT

The overall conclusion of this assessment is that the proposed development is acceptable because it leads to zero loss of future agricultural production potential.

Although the climate and terrain suitability may allow for viable crop production, other factors constrain the potential of the site to practically deliver agricultural produce and therefore limit its agricultural production potential. This is because its location, totally surrounded by urbanisation and the development is located within the Port of East London. This leaves it isolated from any other farmland and makes any agricultural activity totally impractical. For these reasons, the site will never be viably utilised for agricultural production and its potential is therefore assessed here as non-existent.

The screening tool classifies the assessed site as ranging from medium to very high agricultural sensitivity and therefore classifies the overall site sensitivity, which is the highest sensitivity encountered across the site, as high. The high sensitivity classification is due to its land capability rating. However, the site is not at all suitable for viable crop production and its true sensitivity, as assessed on the ground, is therefore medium. This assessment therefore disputes the sensitivity classification of the site by the screening tool and verifies the entire site as being of medium agricultural sensitivity because of its assessed cropping potential.

An agricultural impact must by definition cause a change to the future agricultural production potential of land. If there is no change, there is no impact. Because the site has no agricultural production potential due to the limitations of its location, the occupation of the site by the development cannot change its agricultural production potential. The development will therefore have zero agricultural impact and is therefore assessed 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

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

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& the environment
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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: THE PROPOSED SOLAR POWERED DESALINATION PLANT WITHIN THE PORT OF EAST LONDON, EASTERN CAPE PROVINCE

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:

28 March 2026

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

28/03/2026

Date

Signature of the Commissioner of Oaths

2026-03-28

Date

SUID-AFRIKAANSE POLISIEDIENS
HOUT BAY
28 MAR 2026
COMMUNITY SERVICE
SOUTH AFRICAN POLICE DEPARTMENT

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 2027**

President of Council

Chief Executive Officer

To verify this certificate scan this code

APPENDIX 4: Land type soil data

Table 4: Land type soil data.

Land type	Soil series (forms)	Depth (mm)	Clay % A horizon	Clay % B horizon	Depth limiting layer	% of land type
Db184	Kd	400 - 800	10 - 20	35 - 55	gc	36.3
Db184	Es	250 - 400	10 - 20	35 - 55	pr	27.0
Db184	Cf	150 - 450	10 - 20		so	12.0
Db184	Gs	150 - 450	10 - 20		so	9.3
Db184	Oa	600 - 1200	10 - 20	20 - 30	R,gc	4.0
Db184	E					3.4
Db184	Gs	150 - 250	10 - 20		so	3.0
Db184	R					1.8
Db184	Cf	150 - 250	10 - 20		so	1.2
Db184	S					1.2
Db184	Vf	800 - 1200	4 - 10	10 - 20	U	0.5
Db184	Du	900 - 1200	6 - 15		U	0.3
Db184	Fw	0 > 1200	0 - 6			0.3