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# DRAFT BASIC ASSESSMENT REPORT FOR A MAINTENANCE, REPAIRS AND OVERHAUL FACILITY, THE PARTIAL RE-ALIGNMENT OF THE CHARLIE RUNWAY, AND THE FORMALISATION OF THE CHARLIE RUNWAY APRON, ON A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG

**APPLICANT:**
**LANSERIA INTERNATIONAL AIRPORT PTY LTD**

**GAUT REF NUMBER: TO BE RECEIVED**

**APRIL 2025**

GAUTENG PROVINCE
ENVIRONMENT
REPUBLIC OF SOUTH AFRICA

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (2025 VERSION 1)

**Kindly note that:**

1. This **Basic Assessment Report** is the standard report required by the Gauteng Department of Environment in terms of the EIA Regulations, 2014.

2. This application form is current as of April 2025. It is the applicant's responsibility to check for any updated versions published by the competent authority.

3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.

4. **A draft Basic Assessment Report must be submitted, for purposes of comments within thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at https://eia.gauteng.gov.za.**

5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at https://eia.gauteng.gov.za.**

6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**

7. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.

9. An incomplete report may lead to an application for environmental authorisation, or a Waste Management License being refused.

10. Any report that does not contain a titled and dated full-colour large-scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation or a Waste Management License being refused.

11. The use of "not applicable" in the report must be done with circumspection because if it is used for material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation or Waste Management License being refused.

12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.

13. Unless protected by law, and indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.

14. Although pre-application meetings with the Competent Authority is optional, applicants are advised to have these meetings before submission of the application to seek guidance from the Competent Authority.

15. **Please note that your submission will be acknowledged within 10 days of receipt. If you do not receive an acknowledgement from the Department within this period, kindly follow up using our central email address: environmentenquiries@gauteng.gov.za**

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**DEPARTMENTAL DETAILS**

Gauteng Department of Environment
Attention: Environmental Support Services of the Environmental Branch
P.O. Box 8769
Johannesburg
2000
Ground floor, Umnotho House, 56 Eloff Street, Johannesburg
Administrative Unit telephone number: (011) 240 3052
Department central telephone number: (011) 240 2500

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(For official use only)

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| NEAS Reference Number: | | | | | | |
| File Reference Number: | | | | | | |
| Application Number: | | | | | | |
| Date Received: | | | | | | |

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

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| N/A |

Is a closure plan applicable for this application and has it been included in this report? If not, state reasons for not including the closure plan.

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| N/A |

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

**YES**

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

**YES**

If no, state reasons for not attaching the list.

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Have State Departments including the competent authority commented?

If no, why?

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| This draft report is presently submitted to the public and authorities for comment. Comments are to be received by 28 May 2025. Comments received on the Draft BAR will be included in the Final BAR. |

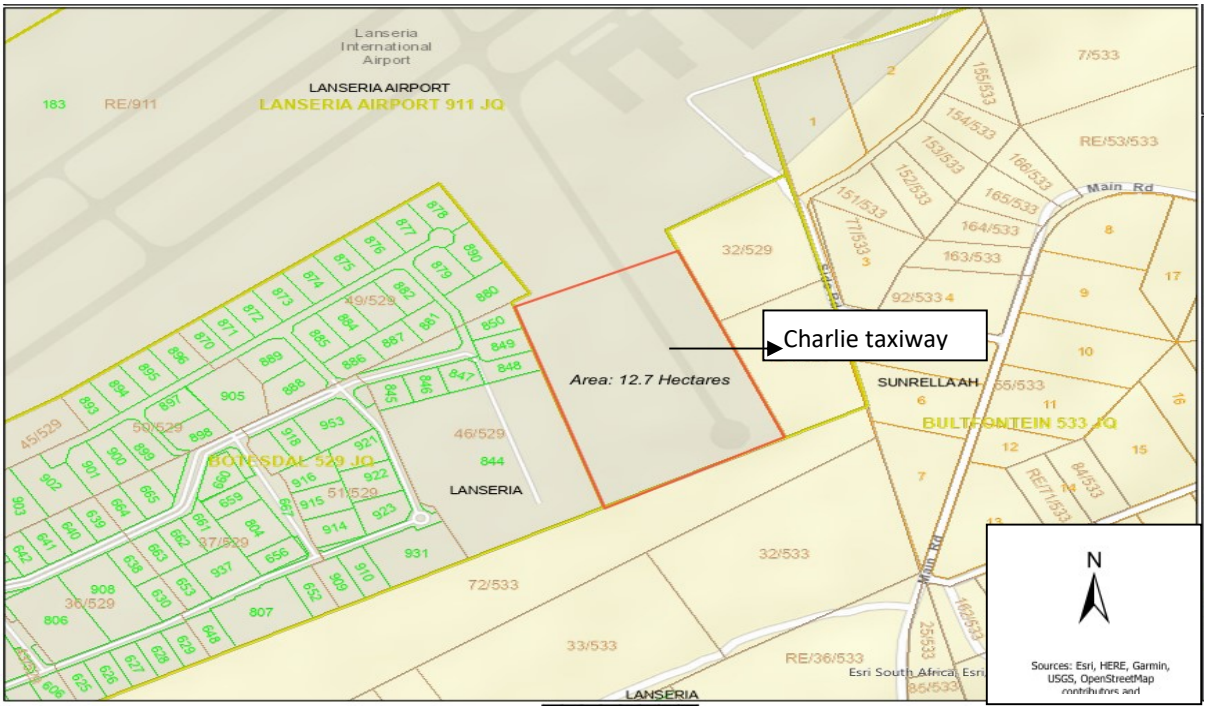
# SECTION A: ACTIVITY INFORMATION

## 1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

**BASIC ASSESSMENT REPORT FOR A MAINTENANCE, REPAIRS AND OVERHAUL FACILITY, THE PARTIAL RE-ALIGNMENT OF THE CHARLIE TAXIWAY, AND THE FORMALISATION OF THE CHARLIE TAXIWAY APRON, ON A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG**

**Figure 1: Project Locality of the study area: A portion of Erf 183 LIA Extension 1**




**Select the appropriate box**

| ~~The application is for an upgrade of an existing development~~ | | **The application is for a new development** | **X** | **Other, specify** | |
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Does the activity also require any authorisation other than NEMA EIA authorisation?

| **YES** | NO |
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If yes, describe the legislation and the Competent Authority administering such legislation

A Water Use License (WUL) in terms of Section 21 of the National Water Act, 1998 (Act No. 36 of 1998), will be submitted to the Department of Water and Sanitation (DWS) for the Lanseria

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| International Airport Extension 1, a portion of Erf 183. The following water use as contemplated in Section 21 of the NWA, is associated with the proposed development: Section 21(c) and (i) – various activities within the 500m regulated area (stormwater attenuation, development, etc.). INDEX (Pty) Ltd have been appointed to conduct the WULA for this application. | | |
| If yes, have you applied for the authorisation(s)? | **YES** | NO |
| If yes, have you received approval(s)? | YES | **NO. WUL Application is underway** |

**Project proposal and associated infrastructure**

**Lanseria International Airport** is a privately owned airport that accommodates both domestic and international flights and aircraft. The project area is located *within* the Lanseria International Airport, on the southern side of the runway of the airport. The application area includes a portion of Taxiway "Charlie" and the taxiway apron. See Figure 2. The Taxiway "Charlie" apron is presently used for the LIA firefighting station, training and facilities, as well as the storage of old aircrafts. The area for which this Basic assessment application applies, measures a total of 12.7ha. The site is in the southern most portion of the Lanseria Airport X 1 township. The Lanseria Airport, and therefore the application area, is situated within an area that has been classified as an Industrial node, and Peri Urban in terms of the Nodal Review 2019/20 Policy document.

**Lanseria International Airport PTY LTD**, as the applicant, proposes developing a **new Maintenance, Repair, and Overhaul (MRO) facility** that aims to provide local airlines with a facility for overnight parking and basic maintenance of its aircraft. The MRO facility will provide airlines with large hangars to accommodate aircraft and workshops with specialized equipment for Maintenance [including regular aircraft checks and servicing (daily, weekly, monthly inspections)], Repairs [for fixing any aircraft components or systems that aren't working properly (like engines, hydraulics, electronics, etc.)] and Overhaul activities, an in-depth disassembly, inspection, and rebuild of aircraft parts or systems. **This application includes the partial realignment of the existing Charlie taxiway to provide access to the MRO facility, and the formal development of the Charlie Taxiway apron to service the fly-in fly-out aircraft at the approved Lanseria X 11 township.**

Geoid Geotechnical Engineers (GGE) have conducted a **detailed geotechnical investigation** for the proposed Southern Precinct of the Lanseria International Airport expansion project, of which a portion of Erf 183 LIA Extension 1, forms a part of. Based on Geotechnical field profiling, Geoid has characterised the application site by five geotechnical zones, Zones 1,2,3,5 and 6. See section 5 of this BA report and Appendix G for this specialist report. Given the complexity of the site, with single structures likely to straddle multiple zones, it is recommended that the Geotechnical Specialist be appointed to interact with the professional team to provide ongoing support for the duration of the project to further investigate, delineate transition zones, provide costings, undertake preliminary designs and procurement advice, finalise the designs, and inspect / monitor the ground improvement / foundation works for compliance with the project recommendations and specifications on all in ground works.

**Figure 2: Project Locality within the greater Lanseria Southern Precinct**

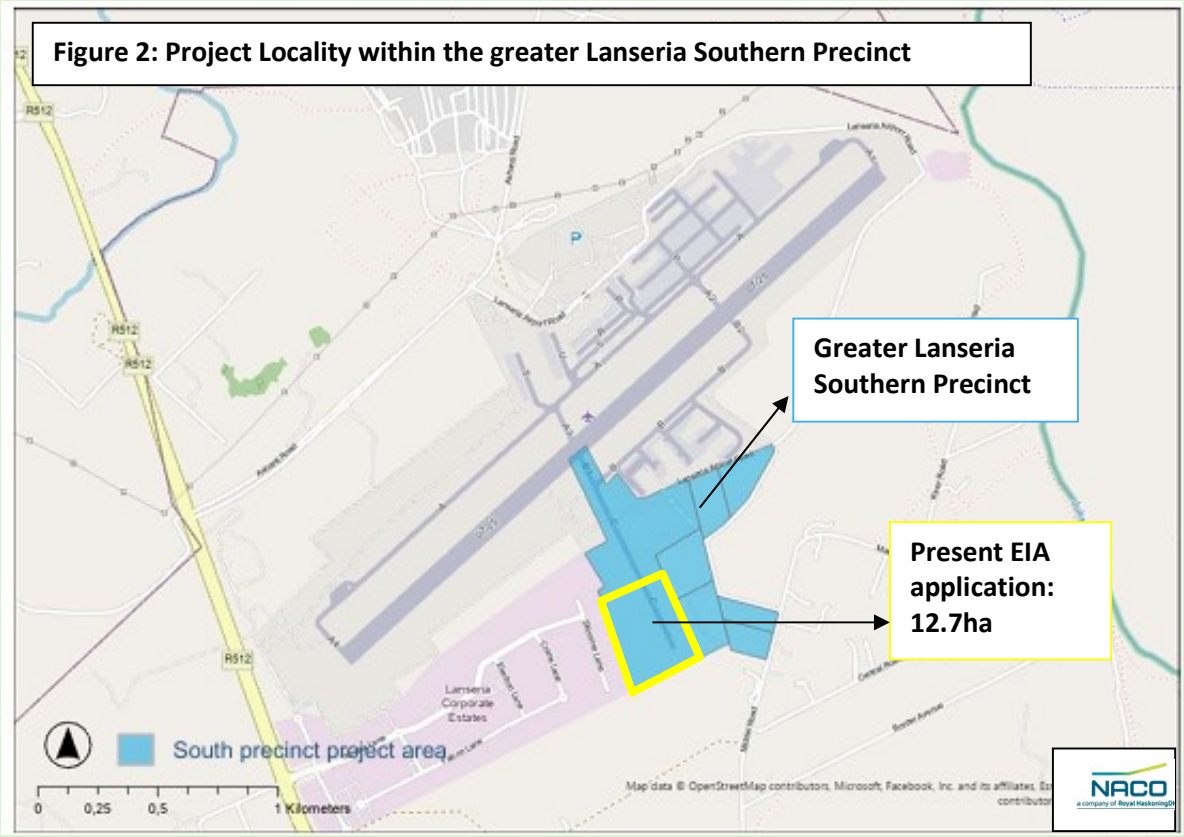
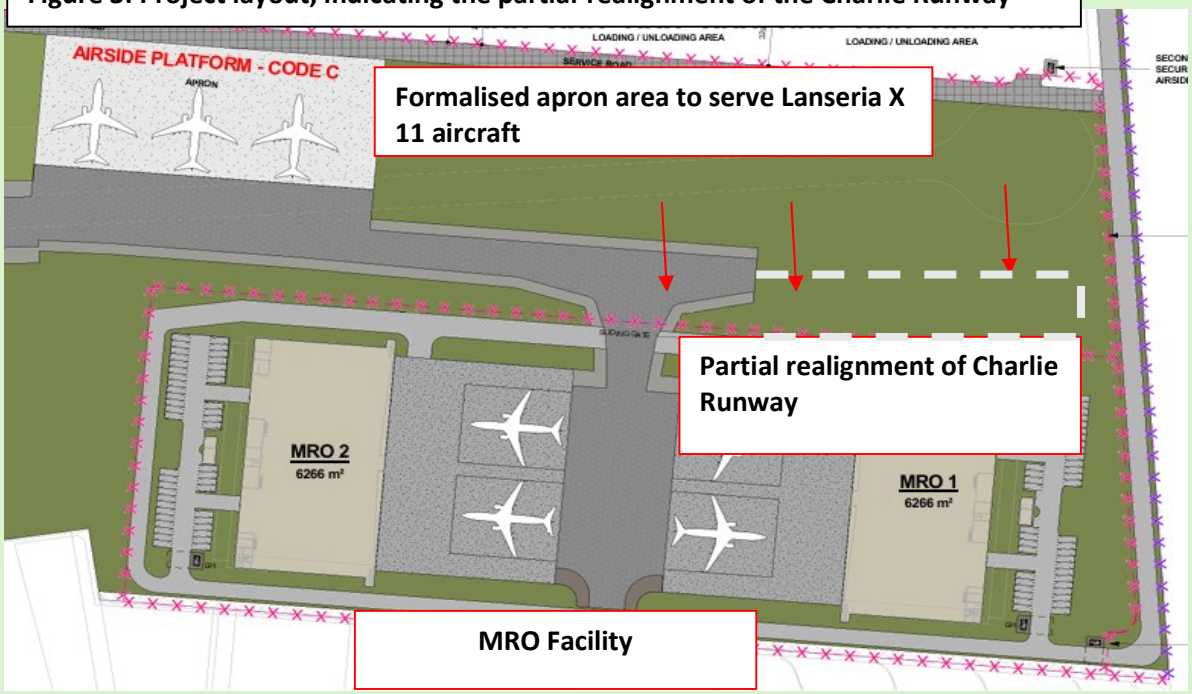



**Figure 3: Project layout, indicating the partial-realignment of the Charlie Runway**



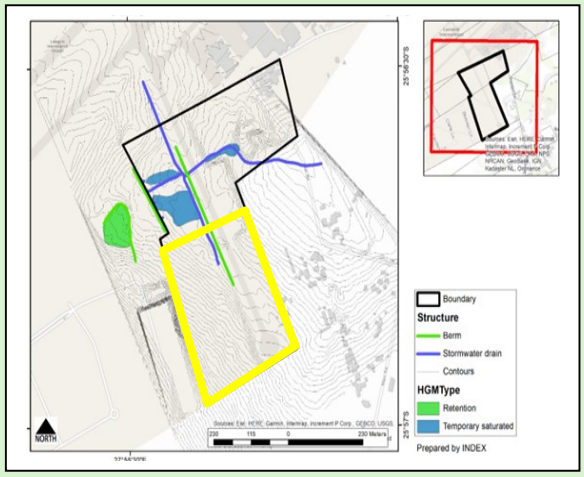
Periodic geotechnical inspection of the works during construction will provide for confirmation of the recommendations given in the geotechnical report, and for any significant changes from the anticipated conditions to be considered timeously, to avoid unnecessary expense due to construction errors. Additional design-level investigative work necessary to optimize foundation works / ground improvement / deep cuts with lateral support and high fills with retaining walls are have been provided in the report.

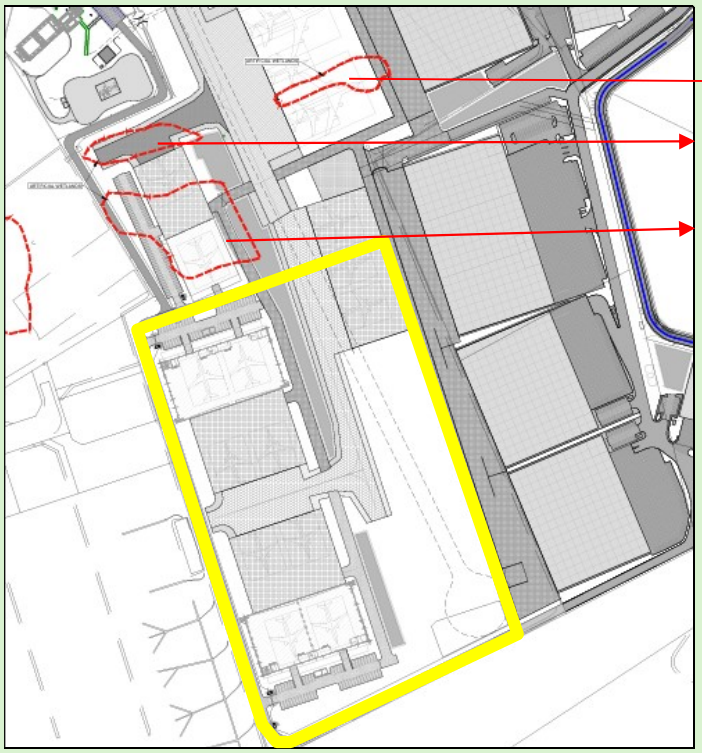
Lanseria International Airport PTY LTD will build the presently proposed MRO phase 1 and 2 facilities as the **first phase of the Lanseria Southern Precinct.** The Lanseria Southern Precinct forms part of the Lanseria Airport and Logistics Hub, which is **part of a broader vision to transform the airport into a significant aviation and business center.** As the aviation market demands more MRO and landside cargo facilities, and capital investment can be secured, **separate authorisation applications for future infrastructure at the LIA will be submitted to the authorities.**

A **Terrestrial biodiversity Assessment** for the greater Lanseria Southern Precinct, of which the application site forms part of, has been conducted by EnviroGaurd Ecological Services CC. The application area is classified as a *degraded grassland vegetation* unit, which has a **low conservation and biodiverse importance.** This is because **the study area has been repeatedly used and cleared of vegetation over many years for many different purposes, including airport maintenance activities, stormwater management, informal helipads, firefighting training**, etc. This has resulted in pioneer and secondary successional species establishing together with a few alien invasive trees.

Dr Andries Gouws of INDEX (Pty) LTD conducted a **wetland assessment** for the greater Lanseria Southern Precinct, of which the application site forms part of. **Water-saturated portions** of the greater Lanseria Southern Precinct could clearly be identified during the site visit. **The artificial wetlands are not located on the application site for the MRO phase 1 and 2 facility.** See Appendix A4 and the below figures.

Seasonally saturated soils within the greater Lanseria Southern Precinct were classified as *temporary* and *artificial* wetlands. The artificial wetlands have no connectivity downstream, and as such have no ecological function apart from stormwater attenuation. Because no functional wetlands were identified, no buffers are applicable. As such, **this application study area is not affected by wetlands or buffer zones.**



Artificial wetlands on site created solely by stormwater runoff from the adjacent ALPLA building in the Lanseria Corporate Estate. The artificial wetlands do not impact the present study area.

EDS Engineers have confirmed that since the new development will be situated within the existing township of Lanseria Airport Extension 1 (X1), a new internal water reticulation system will be implemented for the development, which will connect to the **existing Lanseria Airport X1 infrastructure.** All new water reticulation pipelines and fire hydrants will be installed by the developer.

With regards sewer services, the airport has its own approved **Wastewater Treatment Works (WWTW).** As a result of the gradient design constraints, the proposed development will be situated at a lower elevation than the existing LIA gravity sewer system that leads to the wastewater treatment plant (WWTP). The new MRO development will therefore include a central sewer pump station, which will collect effluent via a gravity-fed network and pump it to the nearest gravity sewer line leading to the LIA WWTP. See Appendix I of the EDS Engineers report in Appendix G of this BAR. The internal sewer reticulation system will comprise 110mm Ø gravity sewer pipes and a 63mm Ø pumped rising main, both to be installed by the developer. The existing 200mm Ø gravity sewer main will be rerouted accordingly. No external sewer infrastructure upgrades will be required as part of this development.

There are no municipal stormwater infrastructure networks in the surrounding area of the application site. A natural watercourse is located to the northeast of the adjacent Lanseria Extension 11. The southern precinct of Lanseria Extension 1 drains via north-easterly overland flow into this watercourse. Additionally, the adjacent Lanseria Extension 75 includes a stormwater attenuation dam, which discharges overland into the southern precinct of Lanseria Extension 1, creating the artificial wetlands. From the western side of Charlie taxiway, the stormwater continues to drain eastwards toward the natural watercourse via swales and stormwater channels constructed by the LIA under taxiway Charlie.

EDS Engineers have prepared a **stormwater management plan for the greater Lanseria Airport Extension 1 Southern Precinct (total 25ha area).** The new Stormwater Management Plan (SWMP) for the Lanseria X1 Southern Precinct will consist of onsite attenuation as well as an integrated network of underground stormwater systems, ultimately connecting to the Stormwater Connection Point at the approved Lanseria X 11.

The existing informal stormwater attenuation ponds affecting the Lanseria Airport Southern Precinct, while unintentionally functioning as artificial wetland systems, lack the design, control, and resilience necessary to sustainably manage stormwater in an expanding airport and logistics hub environment. These informal features may pose environmental and operational risks over the long term, including uncontrolled flooding on the Charlie runway, aquaplaning, erosion, and degradation of water quality. The development of a formally engineered stormwater management system for the southern precinct is critical to ensuring that stormwater is managed in a way that is both environmentally responsible and functionally reliable. Engineered systems are designed to handle peak runoff volumes more effectively, reducing the risk of localized flooding and erosion across the Charlie runway. They incorporate on site attenuation features, infiltration elements, and discharge control structures to mimic natural hydrological processes more accurately than informal ponds. Engineered systems are more adaptable to future climate conditions and provide a robust, maintainable infrastructure to support sustainable airport operations.

While the current informal attenuation ponds have developed wetland-like characteristics, they lack ecological planning and do not provide habitat connectivity. The engineered stormwater management system will meet regulatory standards for stormwater management in terms of water and environmental legislation. The NEMA and water use activity authorisations for the engineered

SWMP will be obtained in a separate Basic Assessment application. **Because this present BA application for MRO Phases 1 and 2 is not affected by the artificial wetlands or buffer zones, no NEMA activities associated with infilling or depositing material into a watercourse, clearing of indigenous vegetation within 32 m of a watercourse, or development within 32 m of a wetland in a sensitive area, apply.**

The existing Eskom MV network in the area will supply the MRO facilities.

**Activity (s) Applied For:**

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed below:

| Indicate the number of the relevant Government Notice | Activity No. (s) (relevant notice): | Describe each listed activity as per the wording in the listing notices: | Activity description |
|---|---|---|---|
| **GNR 983: Listing Notice 1:** | **27** | The clearance of an area of 1 hectares or more, but less than 20 hectares of **indigenous vegetation** | The activities proposed as part of the MRO facility, will permanently transform 12.7ha on site. |
| | **61** | The **expansion of airports** where the development footprint will be increased. | The township boundary of the LIA will not be increased. All works remain within the LIA X 1 township. Vacant pieces of land within the LIA are being developed in line with the LIA's plans to increase passenger and cargo traffic, and promote regional economic development initiatives. |
| **GNR 985: Listing Notice 3:** | **7 c (iv)** | The development of **aircraft** landing strips and **runways** 1,4 kilometres and shorter in Gauteng in sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans. | The partial re-alignment of the Charlie Taxiway measures approximately 200m in length, and will partially encroach in the CBA of the site. No artificial wetlands will be impacted. |
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| | **Activity 12 c (ii):** | The clearance of an area of 300 square metres or more of **indigenous vegetation** in Gauteng Within **Critical Biodiversity Areas** or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans. | According to the GDARD C-plan, the study area is is regarded as a CBA, belonging to the Critically Endangered Egoli Granite Grassland. |

## 2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

| **Title of legislation, policy or guideline:** | **Administering authority:** | **Promulgation Date:** |
|---|---|---|
| Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996): Chapter 2 Section 24 | Department of Forestry, Fisheries and the Environment (DFFE) | 8 May 1996 |
| National Environmental Management Act No. 107 of 1998 as amended | Department of Environment (GDE) | 27 November 1998 |
| NEMA Environmental Impact Assessment Regulations as amended, GNR 326 | Department of Forestry, Fisheries and the Environment (DFFE) | 7 April 2017 |
| Assessment for Reporting on Identified Environmental Themes | Department of Forestry, Fisheries and the Environment (DFFE) | 20 March 2020 |
| National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)<br>• GN number 1002: National List of Ecosystems that are Threatened and Need Protection dated 9 December 2011, as it relates to the NEMBA;<br>• GN number R.1020: Alien and Invasive Species Regulations, 2020, in Government Gazette 43735 dated September 2020 as it relates to the NEMBA; | Department of Forestry, Fisheries and the Environment (DFFE)<br>Gauteng Department of Environment (GDE) | 2004 |

| Title of legislation, policy or guideline: | Administering authority: | Promulgation Date: |
|---|---|---|
| • GN number 1003: Alien and Invasive Species Lists, 2020, in Government Gazette 43726 dated 18 September 2020, as it relates to the NEMBA; and<br>• GN number 30568: Threatened or Protected Species (TOPS) list dated 14 December 2007, as it relates to the NEMBA. | | |
| Government Gazette 45421 dated 10 May 2019 as it relates to the Department of Forestry, Fisheries, and the Environment (DFFE's) national environmental screening report required with an application for EA as identified in regulation 16(1)(v) of EIA Regulations: o For the Terrestrial Biodiversity Theme: GN 320 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity as published in Government Gazette 43110 dated 20 March 2020; and<br>• For Animal and Plant Species Themes: GN 1150 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental<br>• Impacts on Terrestrial Plant and Animal Species as published in Government Gazette 43855 dated 30 October 2020 | Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Environment (GDE) | 2019 |
| Government Notice 598 Alien and Invasive Species Regulations (2014), including the Government Notice 864 Alien Invasive Species List as published in the Government Gazette 40166 of | Department of Environmental Affairs | 2004<br>2017 |

| Title of legislation, policy or guideline: | Administering authority: | Promulgation Date: |
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| 2016, as it relates to the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004) | | |
| National Environmental Management Waste Act GNR 921 | Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Env (GDE) | 29 November 2013 |
| National Water Act, 1998, Act 36 of 1998 | National Department of Water and Sanitation (DWS) | 1998 |
| Water Services Act, 1997, Act 108 of 1997 | | 1997 |
| Government Notice 509 as published in the Government Gazette 40229 of 2016 as it relates to the National Water Act, 1998 (Act No. 36 of 1998) | | 2016 |
| National Environmental Management: Air Quality Act, Act 39 of 2004 and the Atmospheric Pollution Prevention Act, Act 45 of 1965 | Department of Environment, Forestry and Fisheries (DFFE) | 2004 |
| National Heritage Resources, Act, 1999, Act 25 of 1999 | South Africa Heritage Resources Agency (SAHRA) | 1999 |
| Gauteng Conservation-Plan 4 | Provincial, Gauteng Department of Env (GDEnv) | 2024 |
| Conservation of Agricultural Resources (Act 43 of 1983) National Department of Agriculture 21 April 1983 | National Department of Agriculture | 21 April 1983 |
| Gauteng Environmental Management Framework Gauteng Province 2015 | Gauteng Province | 2015 |
| Gauteng Spatial Development Framework, 2030 | Gauteng Province | 2016 |
| Gauteng Urban Edge 2008 / 2009 | Gauteng Province | 2009 |
| Johannesburg Spatial Development Framework, 2040 | Johannesburg Metropolitan Municipality | |
| Nodal Review, 2020 | | 2018 |
| The Draft Greater Lanseria Master Plan (GLMP) | | 2021 |

| Title of legislation, policy or guideline: | Administering authority: | Promulgation Date: |
|---|---|---|
| | | |
| Lanseria Airport and Logistics Hub | | 2021 |
| Lanseria Regional Spatial Development Policy (LRSDF) | | 2017 |

| DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE: | |
|---|---|
| **Legislation, policy of guideline** | **Description of compliance** |
| **National Environmental Management Act (Act 107 of 1998), as amended (NEMA)** | The National Environmental Management Act (Act 107 of 1998) (NEMA), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment, and which require authorisation from the relevant authorities based on the findings of an environmental assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). These powers are delegated in Gauteng, to the Department of Environment (GDE). |
| **National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations 2014 (as amended)** | In terms of Section 24(2) of NEMA, the Minister and or any MEC in concurrence with the Minister may identify activities which require authorisation as these activities may negatively affect the environment. The Act requires that in such cases the impacts must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorising, permitting, or otherwise allowing the implementation of an activity. The NEMA EIA Regulations guide the processes required for the assessment of impacts of Listed Activities. Three Listing Notices have been published under Government Gazette No 40772 on 07 April 2017; and are an amendment of the 2014 Regulations that were published under Government Gazette No. 38282 on 04 December 2014. The levels of environmental assessment required under each of these Listing Notices are as follows:<br><br>▪ Listing Notice 1 (GNR 983 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require a Basic Assessment.<br>▪ Listing Notice 2 (GNR 984 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require Scoping and Environmental Impact Assessment.<br>▪ Listing Notice 3 (GNR 985 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require Basic Assessment in specifically |

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| | identified geographical areas<br><br>An Environmental Authorisation must be obtained for any activity that is listed in any of the above notices. Such an authorisation may only be granted once the required assessment has been compiled by an independent environmental assessment practitioner, and submitted to the competent authority. See the activities applied for in Section 1A of this report. |
| **Assessment for Reporting on Identified Environmental Themes** | The Department of Forestry, Fisheries and the Environment (DFFE) has published requirements in terms of site sensitivity verification, GN 320 of 20 March 2020, Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Section 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation.<br><br>In terms of this notice, prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration identified by the national web based environmental screening tool (screening tool), where determined, must be confirmed by undertaking a site sensitivity verification. In terms of this notice, the following is applicable:<br>• The site sensitivity verification must be undertaken by an environmental practitioner or a specialist.<br>• The site sensitivity verification must be undertaken using: A desktop analysis, using satellite imagery, A preliminary on-site inspection, and any other available and relevant information.<br><br>The outcome of the site sensitivity verification must be recorded in the form of a report that confirms or disputes the current land and the environmental sensitivity as identified by the screening tool, such as new development or infrastructure, the change in vegetation cover or status etc., Contains motivation and evidence (e.g., photographs) of either the verified or different use of the land and environmental sensitivities, and is submitted together with the relevant assessment report prepared in accordance with the requirements of the EIA Regulations.<br><br>See Appendix G for the Terrestrial biodiversity Assessment conducted by Enviroguard Ecological Services cc for the site. The study area is classified as a ***degraded grassland vegetation*** unit, which has a low conservation and biodiverse importance. |
| **National Environmental Management: Biodiversity Act,** | The objectives of this act are (within the framework of NEMA) to provide for: |

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| **2004 (Act No. 10 of 2004)** | • The management and conservation of biological diversity within the Republic of South Africa and of the components of such diversity;<br>• The use of indigenous biological resources in a sustainable manner;<br>• The fair and equitable sharing among stakeholders of the benefits arising from bio prospecting involving indigenous biological resources;<br>• To give effect to ratify international agreements relating to biodiversity which are binding to the Republic;<br>• To provide for cooperative governance in biodiversity management and conservation; and<br>• To provide for a South African National Biodiversity Institute to assist in achieving the objectives of this Act.<br><br>This act alludes to the fact that management of biodiversity must take place to ensure that the biodiversity of the surrounding areas is not negatively impacted upon, by any activity being undertaken, to ensure the fair and equitable sharing among stakeholders of the benefits arising from indigenous biological resources.<br><br>Furthermore, a person may not carry out a restricted activity involving either:<br>a) A specimen of a listed threatened or protected species;<br>b) Specimens of an alien species; or<br>c) A specimen of a listed invasive species without a permit.<br><br>Chapter 7 of the NEMBA regulations govern the 'permit system for listed threatened or protected species. To remove or relocate any Threatened or Protected Species (TOPS) should they be identified on the site and relevant permits must be applied for. According to the 2022 Red List Ecosystems (RLE) database, the study area is located within the remaining extent of the Critically Endangered (CR) Egoli Granite Grassland. From a provincial biodiversity management perspective, the Gauteng Conservation Plan (C-Plan) V 3.3 indicates that majority of the study area is located within an area considered to be of biodiversity importance, most notably an Important Critical Biodiversity Area (CBA) (also referred to as CBA 2). Triggering features of the Important CBA include the presence of Red and Orange Listed (OL) plant species and primary vegetation. CBAs are areas of high biodiversity value and need to be maintained in a natural state. CBA Important Areas are areas considered important for the survival of threatened species and includes valuable ecosystems such as wetlands, untransformed vegetation, and ridges. A small section in the north of the study area is |

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| | also located within an Ecological Support Area (ESA).<br><br>Enviroguard Ecological Services cc were appointed to conduct a terrestrial biodiversity assessment as part of the Environmental Authorisation (EA) application process for the study area. See Section F and Appendix G of this report, for the detail of this specialist study. The specialist study is aligned to the requirements of this act.<br><br>The application area is classified as a degraded grassland vegetation unit, which has a low conservation and biodiverse importance. |
| **Government Notice 598 Alien and Invasive Species Regulations (2014), including the Government Notice 864 Alien Invasive Species List as published in the Government Gazette 40166 of 2016, as it relates to the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)** | NEMBA is administered by the Department of Environmental Affairs and aims to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA. In terms of alien and invasive species. This act in terms of alien and invasive species aims to:<br>- Prevent the unauthorized introduction and spread of alien and invasive species to ecosystems and habitats where they do not naturally occur,<br>- Manage and control alien and invasive species, to prevent or minimize harm to the environment and biodiversity; and<br>- Eradicate alien species and invasive species from ecosystems and habitats where they may harm such ecosystems or habitats.<br>Alien species are defined, in terms of the National Environmental Management: Biodiversity Act, 2004 (Act no 10 of 2004) as:<br>(a) A species that is not an indigenous species; or<br>(b) An indigenous species translocated or intended to be translocated to a place outside its natural distribution range in nature, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention.<br>Categories according to NEMBA (Alien and Invasive Species Regulations, 2017):<br>- Category 1a: Invasive species that require compulsory control;<br>- Category 1b: Invasive species that require control by means of an invasive species management programme;<br>- Category 2: Commercially used plants that may be grown in demarcated areas, provided that there is a permit and that steps are taken to prevent their spread; and<br>- Category 3: Ornamentally used plants that may no longer be planted.<br>Alien plants present on site must be controlled as a high priority, since they pose a huge risk to ecosystems further away. All Category 1 Declared Weeds and other alien invaders must be removed from the |

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| | site. |
| **The National Water Act, 1998, Act 36** | The National Water Act (Act 36 of 1998) "NWA" provides a framework to protect, develop, conserve, and manage the nation's water resources. Water use is defined broadly in terms of the NWA, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering a watercourse, removing water found underground for certain purposes, and recreation.<br><br>A field assessment was undertaken in March 2024 by INDEX (Pty) Ltd, Dr Andries Gouws, to identify the wetlands *within the greater Southern Precinct.* Dr Gouws found that there are no wetlands on the present application site. See Appendix G for this specialist report.<br><br>The NWA provides for pollution prevention measures, with particular emphasis on water resource pollution. In accordance, the licensee shall ensure that activities impacting upon water resources and effluent releases are monitored for compliance with the applicable Regulations. Emergency incidents involving water resources are included in the Act, requiring the polluter to remediate and mitigate the impacts of such an emergency incident. In terms of Section 19 of the NWA, "an owner of land, a person in control of land or a person who occupies or uses the land on which any activity or process is or was performed or undertaken; or any other situation exists, which causes, has caused or is likely to cause pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring". A water use must be licensed (in terms of Section 21) unless it is listed in Schedule 1 as an existing lawful water use; is permissible under a general authorisation; or if a responsible authority waives the need for a licence. INDEX (Pty) Ltd has been appointed to compile a Water Use Authorisation Application (WUA) process for the proposed development, and the impact it may have on freshwater resources within a 500m radius of the site. |
| **Government Notice 509 as published in the Government Gazette 40229 of 2016 as it relates to the National Water Act, 1998 (Act No. 36 of 1998)** | In accordance with GN509 of 2016 as it relates to the National Water Act, 1998 (Act 36 of 1998), a regulated area of a watercourse in terms of water uses as listed in Section 21c and 21i is defined as:<br>• the outer edge of the 1 in 100 year flood line and/or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam;<br>• in the absence of a determined 1 in 100 year flood line or riparian area, the area within 100 m from the edge of a watercourse where the edge of the watercourse is the first identifiable annual bank fill |

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| | flood bench; or<br>• a 500m radius from the delineated boundary (extent) of any wetland or pan in terms of this regulation.<br>Any development on the study site has the potential to impact the aquatic ecosystems and must be authorised in terms of Section 21 of the National Water Act (1998). INDEX (Pty) Ltd has been appointed to compile a Water Use Authorisation Application (WUA) process for the proposed development, and the impact it may have on freshwater resources within a 500m radius of the site.<br><br>The activities proposed in this application will not impact any 32m zones of regulation of natural wetlands located on adjacent land portions. |
| **National Environment Management Waste Act, 2008 (Act No. 59 of 2008)** | The NEM: Waste Act (NEMWA) was accented to on 10 March 2009 and came into effect on 01 July 2009. This Act repeals the sections in the Environment Conservation Act, Act 73 of 1989 that previously dealt with the licensing of general and hazardous waste storage facilities. The Act was established to regulate waste management for the protection of human health and the environment.<br><br>Section 19 of the NEMWA authorises the Minister to publish a list of waste management activities which would require an environmental assessment and waste management licence. On 3 July 2009 the Minister published a schedule of waste management activities in respect of which a waste management licence is required in accordance with section 20(b) of NEMWA (GN R718, GG 32368). Activities listed under Category A of GN R 718 for which a waste management licence is required, are equivalent to those that require a Basic Assessment process as stipulated in GN R 544 of June 2010. Category B activities are equivalent to those that require a full EIA process as stipulated GN R 545 of June 2010.<br><br>None of the activities relating to the construction and operation of the proposed Light Industrial township development, will require a waste management license. |
| **National Heritage Resource Act 25 of 1999** | The National Heritage Resource Act 25 of 1999 introduce an integrated and interactive system for the management of the national heritage resources; promote good government at all levels, and empower civil society to nurture and conserve their heritage resources so that they may be bequeathed to future generations and Chapter 2 section 35 subsection 3 states that any person who discovers archaeological or paleontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources and subsection 4 says that no person may, without a permit issued by the |

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| | responsible heritage resources authority—<br>a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;<br>b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite; and section 36 subsection 3 states that no person may, without a permit issued by SAHRA or a provincial heritage resources authority—<br>c) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;<br>d) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or<br>e) bring onto or to use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals<br><br>In accordance with Section 38 of the NHRA, an independent heritage consultant has been to conduct a cultural heritage assessment of the site, to determine if the development activities will have an impact on any sites, features or objects of cultural heritage significance. This study is being conducted, and the results will be included in the Final BAR.<br><br>It is highly unlikely that any sites, features or objects of cultural heritage significance occur on site, given the historical use of the site by the airport. |
| **The Gauteng Provincial Environmental Management Framework, 2015** | The Gauteng Provincial Environmental Management Framework is a legal instrument in terms of the Environmental Management Framework Regulations. The regulations are designed to assist environmental impact management including EIA processes, spatial planning and sustainable development. The objectives of the policy are:<br>• To ensure efficient urban development (including associated service infrastructure) in defined selected areas with lower environmental concerns and high development demand in order to help facilitate the implementation of Gauteng Growth and Management Perspective, 2014.<br>• To facilitate the optimal use of current industrial, mining land and other suitable derelict land for the development of non-polluting industrial and large commercial developments.<br>• To protect Critical Biodiversity Areas (CBAs) within urban and rural environments. To ensure the proper integration Ecological Support Areas (ESAs) into rural land use change and development.<br>• To use ESAs as defined in municipal bioregional plans in spatial |

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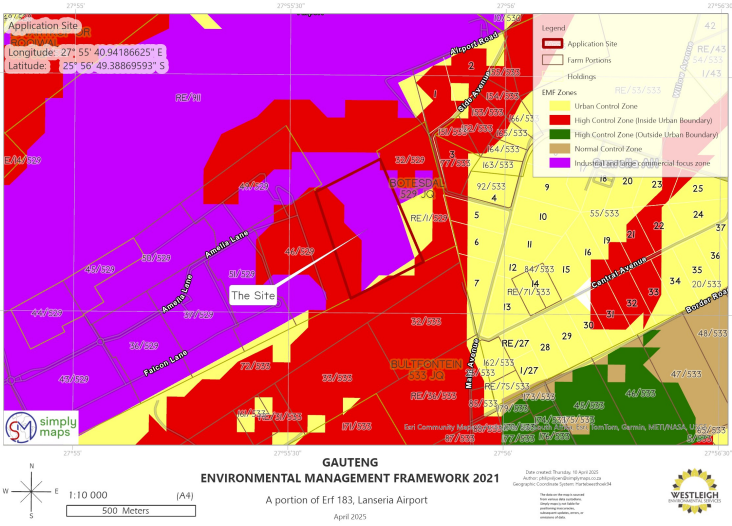
| | planning of urban open space corridors and links within urban areas.<br>• To focus on the sustainability of development through the implementation of initiatives such as Energy efficiency programmes, plans and designs, Waste minimisation, reuse and recycling, Green infrastructure in urban areas, and Sustainable Urban Drainage Systems (SUDS)<br>According to the GDE Environmental Management Framework, the study and investigation areas fall within the following EMF Zones:<br><br>EMF Zone 2: (High control area inside Zone 1): Linear bands associated with drainage in the study and investigation areas are classified as being in Zone 2. This zone is sensitive to development activities. Only conservation should be allowed in this zone. Related tourism and recreation activities must be accommodated in areas surrounding this zone.<br><br>EMF Zone 5: Zone 5 is identified as the Industrial and Large Commercial Focus Zone. The primary objective of this zone is to facilitate non-polluting industrial and large-scale commercial developments. This approach aims to promote economic growth while ensuring environmental sustainability.<br><br>The figure below shows the location of the site within the GPEMF 2021 mapping:<br>  <br> |
| **Gauteng C-Plan v4** | The Gauteng Conservation Plan (Version 4) classified areas within the province based on its contribution to reach the conservation targets within the province. These areas are grouped as Critical Biodiversity Areas (CBAs) or Ecological Support Corridors (ESAs). The CBAs comprise 'Irreplaceable' areas that must be conserved and areas classified as 'Important' to reach the conservation targets of the Province. ESAs are areas that are not essential for meeting biodiversity representation targets/thresholds but which nevertheless play an important role in supporting the ecological |

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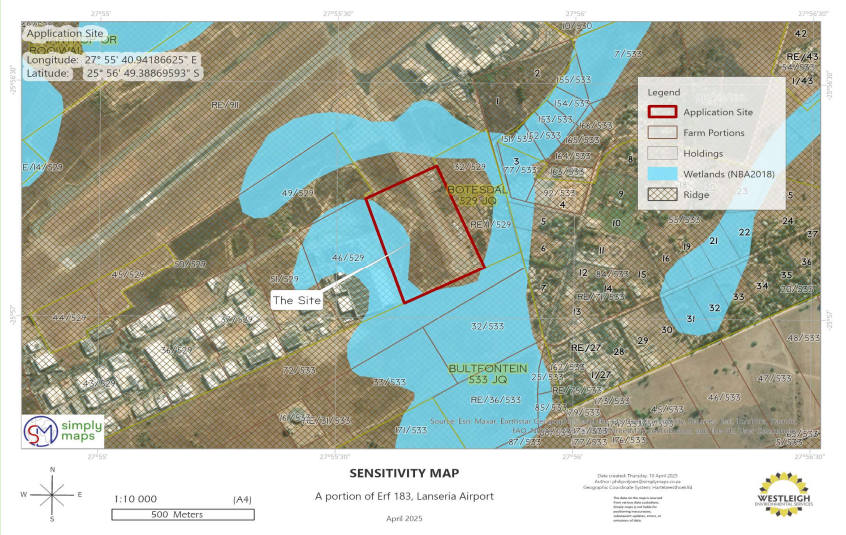
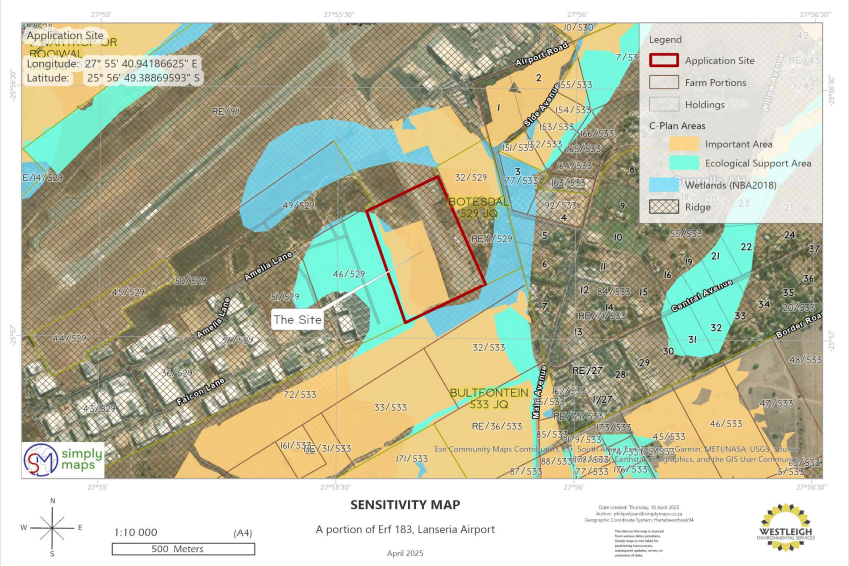
| | functioning of CBAs and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration to ensure sustainability in the long term.<br><br>From a provincial biodiversity management perspective, according to GDARD's C-Plan 4, the study area is characterised by a CBA and wetland in the south western corner of the application site.<br><br>  <br><br><br>  <br> |
| **Johannesburg Spatial Development Framework, 2040**<br><br>**Nodal Review, 2020** | The application site falls within a Peri-Urban Zone and is further identified as an Industrial Node within the City of Johannesburg Nodal Review. The Lanseria International Airport expansion land use plans are in line with this earmarked zone. |
| **The Draft Greater Lanseria Master Plan (GLMP) 2021** | 'The application site falls within the primary zone of the GLMP, which supports land uses like Business, Commercial and Industrial uses. The Lanseria Airport and Logistics Hub is a specialist node, forming the |

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| | northern anchor of Malibongwe major arterial activity spine. |
| **Lanseria Airport and Logistics Hub** | The Lanseria Airport and Logistics Hub represents a strategic initiative to position the airport as a central node for aviation, business, and logistics in the region. The Lanseria Airport and Logistics Hub is part of a broader vision to transform the airport into a significant aviation and business center. This initiative forms part of the smart city around the airport. |
| **Lanseria Regional Spatial Development Policy (LRSDF) 2017** | The Lanseria Regional Spatial Development Policy (LRSDF), established in 2017, plays a pivotal role in shaping the future of the Greater Lanseria area in Gauteng Province, South Africa. The LRSDF aims to create a smart city within the Lanseria region, as envisioned by President Cyril Ramaphosa. This transformative initiative seeks to address the spatial legacy of apartheid by developing a modern, sustainable urban environment. The Greater Lanseria Master Plan (GLMP) serves as the first phase of this smart city development. Key stakeholders include:<br><br>· Gauteng Growth and Development Agency (GGDA)<br>· Department of Water and Sanitation<br>· Gauteng Dept of Environment (GDE)<br>· City of Johannesburg<br><br>The smart city project initially aimed to accommodate 350,000 to 500,000 people by 2030. The focus was to be on building essential infrastructure, including Wastewater treatment facilities. The LRSDF represents a progressive step toward realizing a modern, interconnected, and forward-thinking urban landscape in the Lanseria area. The project site falls within an area identified for development in the LRSDF 2017. |

## 3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

**Note:** After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

One of the objectives of an EIA is to investigate alternatives to the proposed project. The IEM procedure stipulates that the environmental investigation needs to consider feasible alternatives for any proposed development. Therefore, possible proposals or alternatives for accomplishing the same objectives should be identified and investigated. To ensure that the proposed development enables sustainable development, *feasible* alternatives must be explored. The identification, description, evaluation, and comparison of alternatives are important for ensuring a sound environmental process. Alternatives should be considered as a *norm* within the Environmental Process.

Since the site is located within the Lanseria Airport X 1 township, and forms part of the Airports southern precinct development plans, no alternative land uses have been considered. Furthermore, based on international standards and recommendations, and the availability of space, the optimal configuration of the area has been determined.

The application site does not have any environmental sensitivities *on* it, and therefore no alternative layout has been investigated. Only alternative technologies to be used in the activity have been considered.

**Provide a description of the alternatives considered.**

| No. | Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other") | Description |
|---|---|---|
| 1 | **PREFERRED LAYOUT OPTION** | The preferred layout option for the airport expansion activities was selected as preferred, because it enables efficient and secure operations of both the MRO and approved cargo areas (Lanseria X 11), and it maximizes the space available for cargo facilities and enables a phased development. The preferred option includes 2 MRO hangars, arranged in two blocks, each with dedicated apron space alongside perpendicular taxiplanes connecting to taxiway Charlie. The layout ensures that the MRO operations can take place landside and access to airside can be controlled effectively.<br><br>The layout envisages the elevation of the site to be optimised for each facility and in line with the relevant International Civil Aviation Organization Standards and Recommended Practices. Due to the steep slopes of the site, a major cut is required at the South-western end of the site. This will require approximately 300 000 – 500 000 m3 of cut and fill, which will be balanced according to geotechnical investigations and detailed engineering design. Due to the limited space available for a natural terrain fill, a concrete retaining wall is proposed. The excavation depth to the required levels will utilise block retaining walls to prevent |

| | | |
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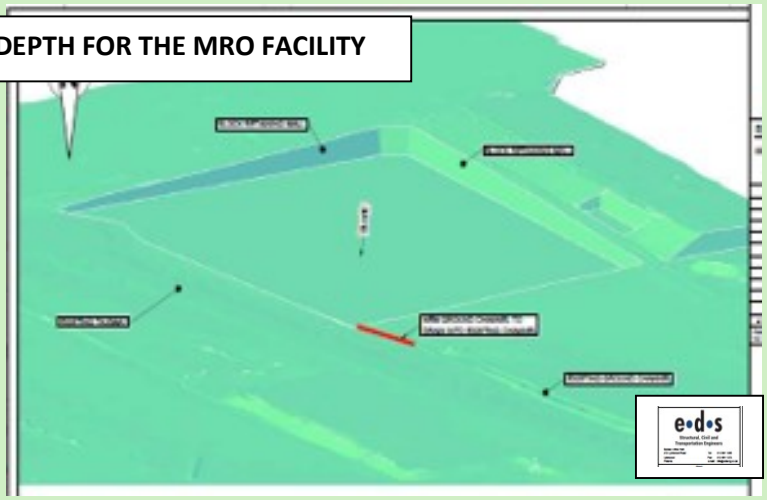
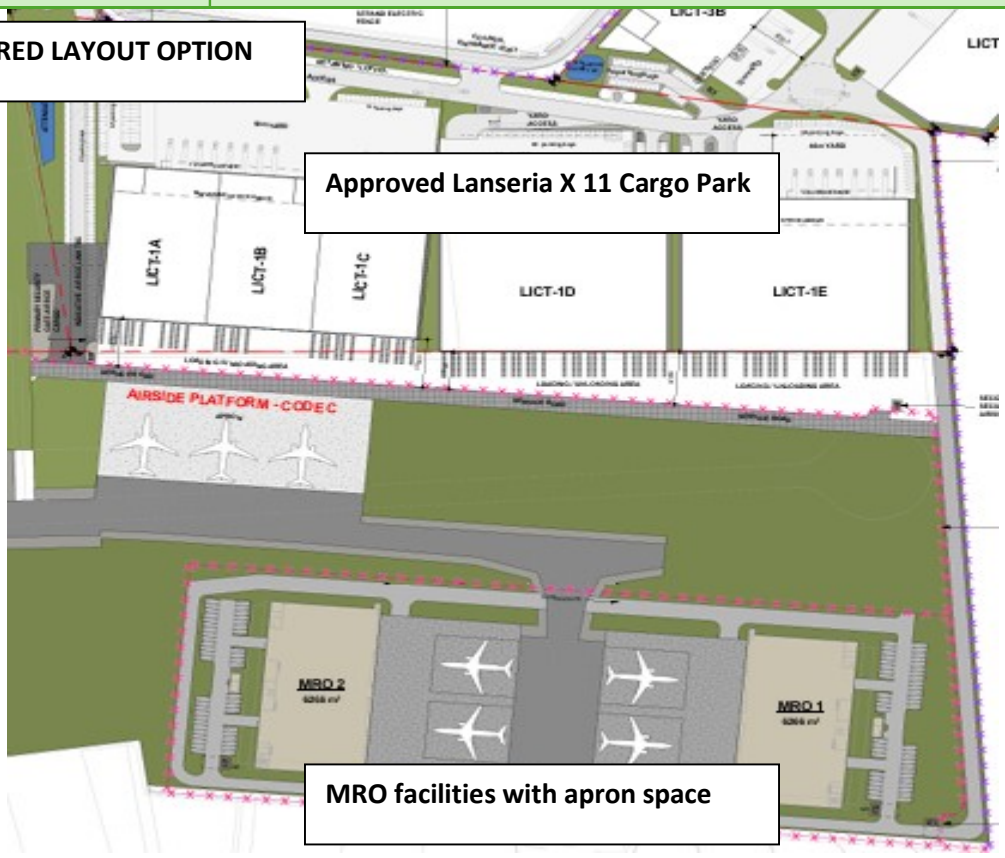
| | | embankment erosion.<br>**PROPOSED EXCAVATION DEPTH FOR THE MRO FACILITY**<br>  |
| | | **PREFERRED LAYOUT OPTION**<br>  |
| 2 | **Alternative technologies** | Conventional methods of construction, energy provision, water management and waste management can be replaced with technology that, as an alternative to resource-intensive and wasteful industry, aims to utilize resources sparingly, with minimum damage to the environment, at affordable cost and with a possible degree of control over the processes. |

| | | |
|---|---|---|
| | | Alternative technologies are paving the way construction companies look at making new structures, whether that is a residential site, corporate or government building. As trends have evolved, there is also a need to incorporate greener practices into building methods. Smart technology is also taking shape in construction practices. These trends will be shaping the future of the construction industry for years to come. As such, the applicant has looked at some of the most prevalent changes that are coming into effect for a more efficient and sustainable building process.<br><br>When constructing a large warehouse building / hangar, there are several alternative technologies and innovative approaches that can be considered to enhance the efficiency, sustainability, and functionality of the structure.<br><br>P*re-engineered Steel Buildings (PEBs)*<br>Pre-engineered buildings use factory-manufactured steel components that are assembled on-site. The structural steel framework is often customized based on the specific needs of the warehouse. PEBs result in faster construction, high strength, durability, and flexibility in design. Steel is highly recyclable, which also contributes to sustainability.<br><br>*Green or sustainable buildings*<br>Constructing green buildings is high on the agenda for many firms, and the applicant is no exception. The warehouse structures will incorporate renewable energy sources. Green Building Technologies focuses on creating energy-efficient and environmentally friendly warehouses using sustainable materials, solar panels, rainwater harvesting systems, and geothermal heating and cooling. Solar roofing, energy-efficient HVAC systems, advanced insulation (e.g., spray foam), and natural daylighting systems (skylights, light tubes) are being considered by the applicant for the development. The implementation of these technologies results in reduced energy consumption, lower operating costs, and a smaller carbon footprint. This can also lead to certifications such as LEED (Leadership in Energy and Environmental Design).<br><br>*Alternative sewer treatment systems*<br>The proposed new development will connect to the existing LIA wastewater treatment works (WWTW). The LIA WWTW has the necessary capacity to accommodate the projected sewer load from the new development.<br><br>These technologies, either individually or in combination, can drastically improve the efficiency, cost, and sustainability of large warehouse |

| | | |
|---|---|---|
| | | construction. Selecting the right approach depends on factors like location, budget, climate, and the specific needs of the warehouse. Conventional methods of construction, energy provision, water management and waste management are not in line with current day sustainable thinking. Alternative technologies must be employed for the new township wherever possible. |

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

| |
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| |

**NOTE: The numbering in the above table must be consistently applied throughout the application report and process**

## 4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

| | **Size of the activity:** |
|---|---|
| Proposed activity | 12.7 hectares |
| **Alternatives:** | |
| Alternative 1 (if any) | 12.7 hectares |
| Alternative 2 (if any) | |
| | Ha/ $m^2$ |

or, for linear activities:

| | **Length of the activity:** |
|---|---|
| Proposed activity | |
| **Alternatives:** | |
| Alternative 1 (if any) | |
| Alternative 2 (if any) | |
| | k/km |

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

| | **Size of the site/servitude:** |
|---|---|
| Proposed activity | |
| **Alternatives:** | |
| Alternative 1 (if any) | |
| Alternative 2 (if any) | |

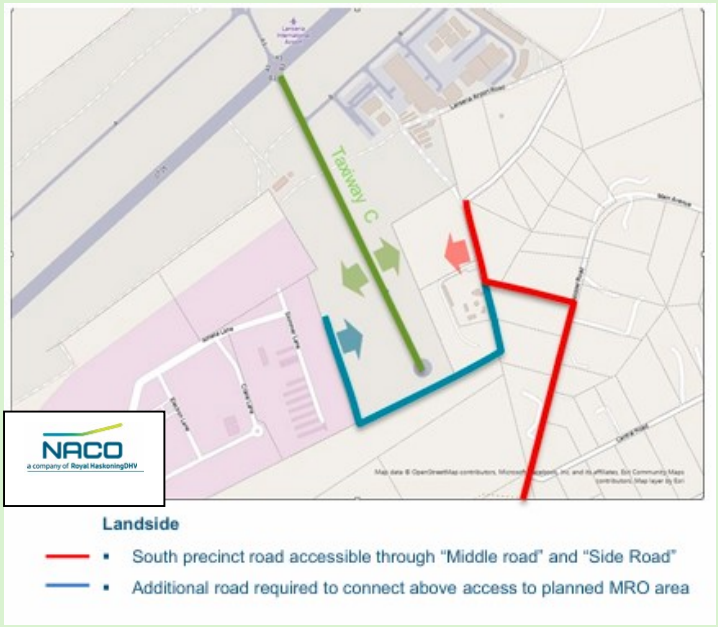
## 5. SITE ACCESS

**Proposal**

| | YES | NO |
|---|---|---|
| Does ready access to the site exist, or is access directly from an existing road? | X | |
| If NO, what is the distance over which a new access road will be built | | m |

Describe the type of access road planned:

The site is accessible through Middle Road and Side Road. An additional service road is required to reach the planned MRO area. Part of this additional road will be in the airport and part of it will be on Extension 11.




Include the position of the access road on the site plan.

**Alternative 1**

| Does ready access to the site exist, or is access directly from an existing road? | YES | NO |
|---|---|---|
| | **X** | |
| If NO, what is the distance over which a new access road will be built | | |

Describe the type of access road planned:

| |
|---|
| |

Include the position of the access road on the site plan.

**Alternative 2**

| Does ready access to the site exist, or is access directly from an existing road? | N/A |
|---|---|
| If NO, what is the distance over which a new access road will be built | |

Describe the type of access road planned:

| |
|---|
| |

Include the position of the access road on the site plan.

**PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives**

| Section A 6-8 has been duplicated | **0** | Number of times |
|---|---|---|

(only complete when applicable)

## 6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500
  - A1 = 1: 1000
  - A2 = 1: 2000
  - A3 = 1: 4000
  - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

**FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)**

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

See Appendix A

## 7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

See Appendix D

## 8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

See Appendix C

# SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

**Note**: Complete Section B for the proposal and alternative(s) (if necessary)
**Further:**
**Instructions for completion of Section B for linear activities**

1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
2) Indicate on a plan(s) the different environments identified
3) Complete Section B for each of the above areas identified
4) Attach to this form in a chronological order
5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route **0** times

**Instructions for completion of Section B for location/route alternatives**

1) For each location/route alternative identified the entire Section B needs to be completed
2) Each alterative location/route needs to be clearly indicated at the top of the next page
3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives **0** times (complete only when appropriate)

**Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application**

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route ____ (complete only when appropriate for above)
Section B – Location/route Alternative No. ____ (complete only when appropriate for above)

## 1. PROPERTY DESCRIPTION

| | |
|---|---|
| **Property description:** (Farm name, portion etc.) | A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG |

## 2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

| **Proposed, preferred Alternative:** | **Latitude (S):** | **Longitude (E):** |
|---|---|---|
| | 27. 926 | 25.950 |

**In the case of linear activities:**

| **Alternative:** | **Latitude (S):** | **Longitude (E):** |
|---|---|---|
| • Starting point of the activity | | |
| • Middle point of the activity | | |
| • End point of the activity | | |

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

| | |
|---|---|
| Addendum of route alternatives attached | |

The 21 digit Surveyor General code of each cadastral land parcel

T0JQ00000000091100000

## 3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

| | | | | | | |
|---|---|---|---|---|---|---|
| Flat | 1:50 – 1:20 | 1:20 – 1:15 | **1:15 – 1:10** | 1:10 – 1:7,5 | 1:7,5 – 1:5 | Steeper than 1:5 |

*The site has a general slope from west to east, with a total elevation difference of about 14m across the site. The general slope is less than 2% towards the east.*

## 4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

| | | | | | | |
|---|---|---|---|---|---|---|
| Ridgeline | Plateau | Side slope of hill/ridge | Valley | Plain | **Undulating plain/low hills** | River front |

## 5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Geoid Geotechnical Engineers (GGE) has conducted a detailed **geotechnical investigation** for the proposed Southern Precinct of the Lanseria International Airport expansion project, of which a portion of Erf 183 LIA Extension 1, forms a part of. Based on the Geotechnical field profiling, Geoid has characterised the application site by five geotechnical zones, Zones

1,2,3,5 and 6.

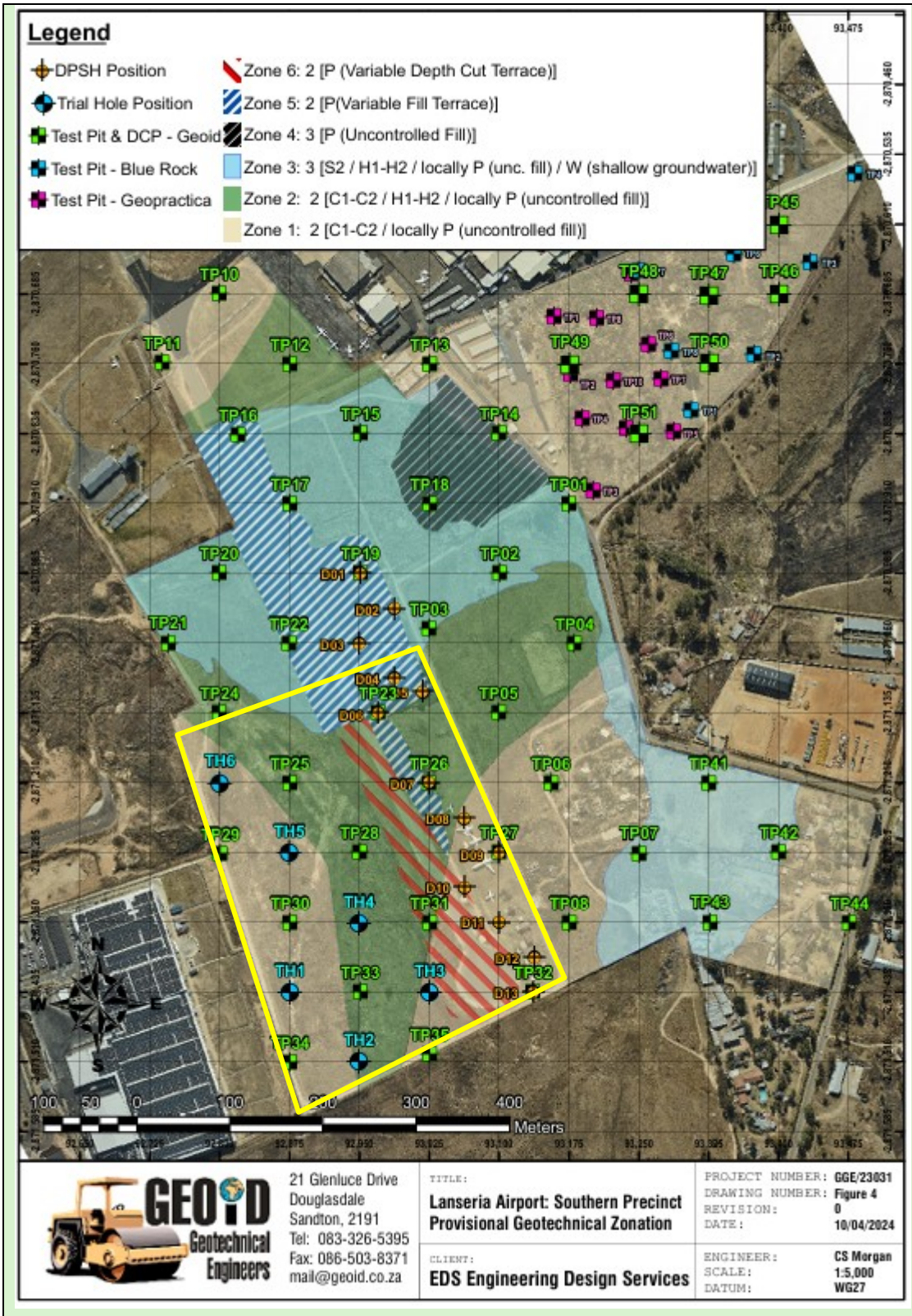
Zone 1 is uncontrolled fill. The soil profile on this zone is characterised by highly compressible / potentially highly collapsible hillwash soils and localised loose fill deposits of variable thickness, blanketing compressible residual granite, which tend towards being slightly expansive near the diabase. Localised deposits of uncontrolled fill will be present which would negatively influence founding of structures and support of pavements if not appropriately mitigated.

Zone 2 comprises the inferred areal extent of the diabase intrusion, including the peripheral areas of highly altered residual granite which are degraded by the diabase - tends to be slightly to moderately expansive, but also blanketed by potentially highly collapsible hillwash soils of variable thickness. The extensive evidence of ferricrete in this zone will tend to mitigate the activity of the soils, rendering these more inert than would normally be the case. The diabasic soils also become progressively inert with depth.

Zone 3 exhibits shallow groundwater. This zone is typically characterized by bands of gully wash which range from loose, compressible, cohesionless sands to moderately expansive clays. This zone largely appears to be underlain by residual diabase, which is similarly potentially moderately active in the reworked zone, although this is frequently capped by competent hardpan ferricrete which masks the nature of the residual soils. Appropriate geotechnical recommendations have been provided in the report.

Zone 5 comprises a reasonable quality, selected (nominally G7) granular fill, primarily of residual granite origin. In situ profiling, supplemented with DCP and DPSH probing (see Appendix D of the Geotech report) shows this fill to be better compacted in the upper reaches near ground level, with a tendency for the stiffness to deteriorate with depth, particularly near the interface with the underlying gullywash soils, where little to no compaction is evident. A penetration resistance in the order of 30 blows per 300mm would be expected for a well-compacted fill terrace for settlements to be kept in a tolerable range. As this fill terrace generally falls even well below this benchmark, it is considered susceptible to future consolidation and differential settlement under load. In situ densification of this zone is considered a necessary precursor to development. DPSH probing through the terrace shows this to be as much as 5m thick at DPSH2 but tapering in either direction beyond this possible low-point.

Zone 6: much of the natural soil profile has been removed through to the soft rock granite (or diabase) rockhead, which is locally exposed in the deepest part of the cutting near Test Pit 31. Somewhat unexpectedly, test pits in the graveyard platform east of the turning circle of T/C, exposed a natural profile where not in cut, albeit hosting a very competent hardpan ferricrete horizon.


Legend
DPSH Position
Trial Hole Position
Test Pit & DCP - Geoid
Test Pit - Blue Rock
Test Pit - Geopractica
Zone 6: 2 [P (Variable Depth Cut Terrace)]
Zone 5: 2 [P(Variable Fill Terrace)]
Zone 4: 3 [P (Uncontrolled Fill)]
Zone 3: 3 [S2 / H1-H2 / locally P (unc. fill) / W (shallow groundwater)]
Zone 2: 2 [C1-C2 / H1-H2 / locally P (uncontrolled fill)]
Zone 1: 2 [C1-C2 / locally P (uncontrolled fill)]
TP10
TP11
TP12
TP13
TP14
TP15
TP16
TP17
TP18
TP19
TP20
TP21
TP22
TP23
TP24
TP25
TP26
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D04
D05
D06
D07
D08
D09
D10
D11
D12
D13
N
S
E
W
100 50 0 100 200 300 400
Meters
GEOID Geotechnical Engineers
21 Glenluce Drive
Douglasdale
Sandton, 2191
Tel: 083-326-5395
Fax: 086-503-8371
mail@geoid.co.za
TITLE:
Lanseria Airport: Southern Precinct
Provisional Geotechnical Zonation
CLIENT:
EDS Engineering Design Services
PROJECT NUMBER: GGE/23031
DRAWING NUMBER: Figure 4
REVISION: 0
DATE: 10/04/2024
ENGINEER: CS Morgan
SCALE: 1:5,000
DATUM: WG27

Is the site located on any of the following?

| | | |
|---|---|---|
| Shallow water table (less than 1.5m deep) | YES | NO |
| Dolomite, sinkhole or doline areas | YES | NO |
| Seasonally wet soils (often close to water bodies) | YES | NO |
| Unstable rocky slopes or steep slopes with loose soil | YES | NO |
| Dispersive soils (soils that dissolve in water) | YES | NO |
| Soils with high clay content (clay fraction more than 40%) | YES | NO |
| Any other unstable soil or geological feature | YES | NO |
| An area sensitive to erosion | YES | NO |

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

| | | |
|---|---|---|
| b) are any **caves** located on the site(s) | YES | NO |

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

| **Latitude (S):** | **Longitude (E):** |
|---|---|
| ° | ° |

| | | |
|---|---|---|
| c) are any **caves** located within a 300m radius of the site(s) | YES | NO |

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

| **Latitude (S):** | **Longitude (E):** |
|---|---|
| ° | ° |

| | |
|---|---|
| d) are any **sinkholes** located within a 300m radius of the site(s) | NO |

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

| **Latitude (S):** | **Longitude (E):** |
|---|---|
| ° | ° |

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

## 6. AGRICULTURE

| | | |
|---|---|---|
| Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)? | YES | **NO** |

## 7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site.

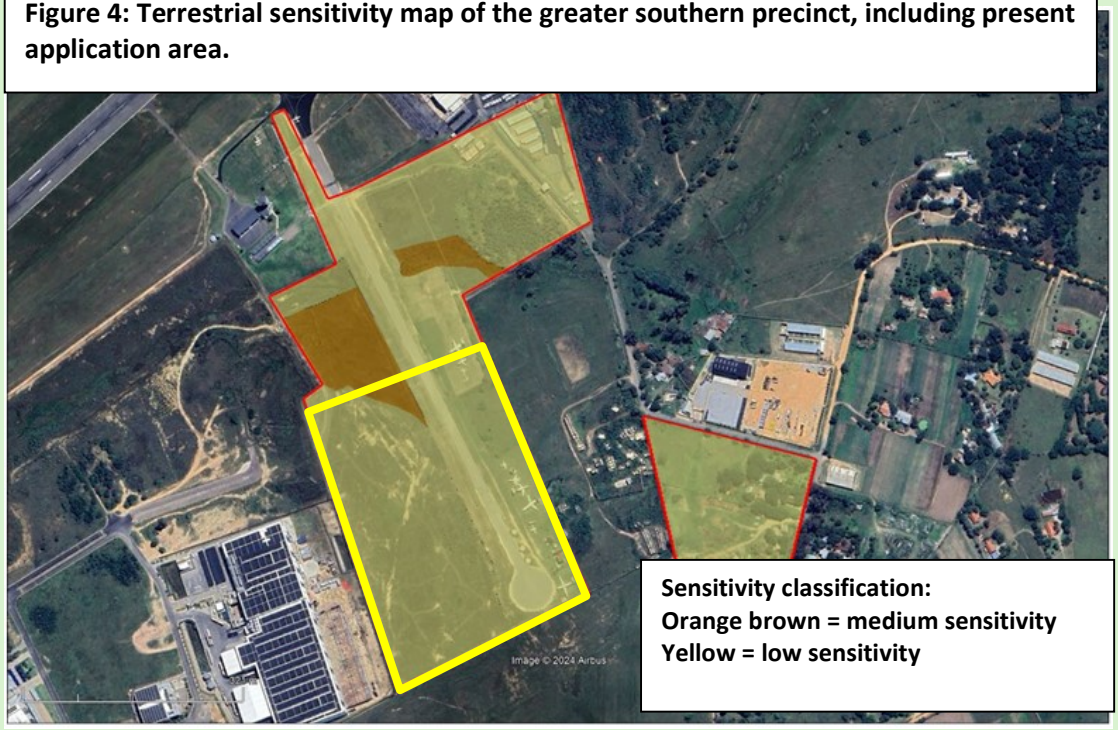
| | | | | |
|---|---|---|---|---|
| Natural veld - good condition<br>% = | Natural veld with scattered aliens<br>% = | **Natural veld with heavy alien infestation /** | Veld dominated by alien species<br>% = | Landscaped (vegetation)<br>% = |
| Sport field<br>% = | Cultivated land<br>% = | Paved surface (hard landscaping)<br>% = | Building or other structure<br>% = | Bare soil<br>% = |

**Please note**: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

| | | |
|---|---|---|
| Are there any rare or endangered flora or fauna species (including red list species) present on the site | YES | NO |
| If YES, specify and explain: | | |
| Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site. | | NO |
| If YES, specify and explain: | | |
| Are there any special or sensitive habitats or other natural features present **<u>on</u>** the site? | YES | **NO** |
| If YES, specify and explain: | | |
| Was a specialist consulted to assist with completing this section | **YES** | NO |

A Terrestrial biodiversity Assessment for the greater Lanseria Southern Precinct, of which the application site forms part of, has been conducted by EnviroGaurd Ecological Services CC. The application area is classified as a *degraded grassland vegetation* unit, which has a low conservation and biodiverse importance. This is because the area has been repeatedly used and cleared over many years for many different purposes, including airport maintenance, stormwater management, informal helipads, firefighting training, etc. This has resulted in pioneer and secondary successional species establishing together with a few alien invasive trees.

**Figure 4: Terrestrial sensitivity map of the greater southern precinct, including present application area.**




Dr Andries Gouws of INDEX (Pty) LTD conducted a wetland assessment for the greater Lanseria Southern Precinct, of which the application site forms part of. Water-saturated portions of the greater Lanseria Southern Precinct could clearly be identified during the site visit. The artificial wetlands are not located on the application site for the MRO facility, re-alignment of the Charlie Runway, or the Charlie runway apron.

Seasonally saturated soils within the greater Lanseria Southern Precinct were classified as *temporary* and *artificial* wetlands. The artificial wetlands have no connectivity downstream, and as such have no ecological function apart from stormwater attenuation. Because no functional wetlands were identified, no buffers are applicable. As such, this application is not affected by wetlands or buffer zones.

**Furthermore, an airport cannot have wetlands due to serious aviation safety, infrastructure, and regulatory risks. While wetlands are valuable ecosystems, they conflict with the primary function of an airport, which is to ensure safe and efficient aircraft operations.**

The International Civil Aviation Organization) and civil aviation authorities prohibit land uses that attract birds within a radius of 8–13 km of an airport. Wetlands can interfere with airport drainage systems requiring carefully engineered stormwater systems to prevent runway flooding and hydroplaning risks. Allowing wetlands to persist in an airport can retain water in undesirable areas, undermining runway and taxiway structural integrity. Wetlands in an airport conflicts directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property.

***The Terrestrial biodiversity and wetland assessments are presently being updated in accordance with the Requirements for GN 320 Protocol Compliance. The reports will clearly identify impact footprints, infrastructure layout, and applicable setbacks relative to sensitive features. The updated reports will update direct, indirect and cumulative impacts based on the preferred SDP layout. The updated reports will include Site-Specific Mitigation and Management Measures, and will overlay sensitivity layers on the preferred SDP layout.***

If yes complete specialist details

| | | | |
|---|---|---|---|
| Name of the specialist: | EnviroGuard Ecological Services CC | | |
| Qualification(s) of the specialist: | Professor Leslie Brown<br>• SACNASP registration: 400075/98 (Ecological Science & Botanical Science)<br>• PhD Terrestrial plant ecology<br>• MSc. Water ecology<br>• BSc Hons (Botany) BSc (Ed) (Botany, Zoology, Education) Wetland and Riparian Delineation (DWAF Accredited Course) | | |
| Postal address: | P O Box 703 Heidelberg | | |
| Postal code: | 1438 | | |
| Telephone: | | | 082 464 1021 |
| E-mail: | envguard@telkomsa.net | | |

| | YES | NO |
|---|---|---|
| Are any further specialist studies recommended by the specialist? | | |

| | | | |
|---|---|---|---|
| Signature of specialist: | | Date: | April 2025 |

| | | | |
|---|---|---|---|
| Name of the specialist: | Dr Andries Gouws<br>Index PTY LTYD | | |
| Qualification(s) of the specialist: | Registered member of SACNASP in the category of Soils and Agriculture. | | |
| Postal address: | P.O. BOX 96023 WATERKLOOF VILLAGE PRETORIA | | |
| Postal code: | 0145 | | |
| Telephone: | | | 082 807 6717 |

| | | | |
|---|---|---|---|
| E-mail: | index@iafrica.com | | |

| | YES | NO |
|---|---|---|
| Are any further specialist studies recommended by the specialist? | | |

Signature of specialist: 

Date: March 2025

| | | | |
|---|---|---|---|
| If YES, specify: | | | |
| If YES, is such a report(s) attached? | YES | NO | |
| Name of the specialist: | | | |
| Qualification(s) of the specialist: | | | |
| Postal address: | | | |
| Postal code: | | | |
| Telephone: | | | |
| E-mail: | | | |
| Are any further specialist studies recommended by the specialist? | YES | NO | |
| If YES, specify: | | | |
| If YES, is such a report(s) attached? | YES | NO | |

If YES list the specialist reports attached below:

| | |
|---|---|
| | |

**Please note;** If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated.

## 8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

| | | | | |
|---|---|---|---|---|
| 1. Vacant land | 2. River, stream, wetland | 3. Nature conservation area | 4. Public open space | 5. Koppie or ridge |
| 6. Dam or reservoir | 7. Agriculture | 8. Low density residential | 9. Medium to high density residential | 10. Informal residential |
| 11. Old age home | 12. Retail | 13. Offices | 14. Commercial & warehousing | 15. Light industrial |

| | | | | |
|---|---|---|---|---|
| 16. Heavy industrial[AN] | 17. Hospitality facility | 18. Church | 19. Education facilities | 20. Sport facilities |
| 21. Golf course/polo fields | 22. Airport[N] | 23. Train station or shunting yard[N] | 24. Railway line[N] | 25. Major road (4 lanes or more)[N] |
| 26. Sewage treatment plant[A] | 27. Landfill or waste treatment site[A] | 28. Historical building | 29. Graveyard | 30. Archeological site |
| 31. Open cast mine | 32. Underground mine | 33.Spoil heap or slimes dam[A] | 34. Small Holdings | 35. Road |
| Other land uses (describe): | 36. Airport Runway | | | |

**NOTE: Each block represents an area of 250m X250m**

NORTH

| | | | | |
|---|---|---|---|---|
| 14. Commercial & warehousing | 14. Commercial & warehousing | 14. Commercial & warehousing | 14. Commercial & warehousing | 14. Commercial & warehousing |
| 14. Commercial & warehousing | 14. Commercial & warehousing | 14. Commercial & warehousing | 14. Commercial & warehousing | 14. Commercial & warehousing |
| 1. Vacant land | 1. Vacant land | | 22. Airport[N] | 22. Airport[N] |
| 1. Vacant land | 1. Vacant land | 36. Airport Runway | 36. Airport Runway | 36. Airport Runway |
| 1. Vacant land | 1. Vacant land | 14. Commercial & warehousing | 14. Commercial & warehousing | 14. C & warehousing |

WEST

EAST

Site

SOUTH

**Note:** More than one (1) Land-use may be indicated in a block

**Please note**: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "[A]" and with an "[N]" respectively.

| Have specialist reports been attached | YES | NO |
|---|---|---|

**If yes indicate the type of reports below**

- Terrestrial Biodiversity Assessment
- Wetland Assessment
- Water, Sewer, Roads Engineering Reports
- Stormwater Management Plan
- Geotechnical Investigations
- Environmental Management Programme

## 9. SOCIO-ECONOMIC CONTEXT

**Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.**

The Lanseria MRO warehouses and associated activities, form part of the Lanseria Airport and Logistics Hub which will serve as a pivotal economic and social asset within its region, characterized by the strategic location and accessibility of the LIA. Situated near Johannesburg's major business districts, including Sandton, Lanseria International Airport offers a convenient alternative to O.R. Tambo International Airport. Its proximity to affluent areas enhances its appeal for business travellers and contributes to its role as a significant economic driver.

The airport has undergone positive changes in its shareholding structure, reflecting confidence in the airport's growth potential. The shareholding restructuring will unlock capital for infrastructure projects, including the approved cargo precinct and the proposed Maintenance Repair Overhaul (MRO) facilities.

Lanseria is central to the proposed Lanseria Smart City, a visionary project aimed at creating a sustainable urban environment. The development includes plans for residential, commercial, and industrial zones, leveraging the airport as the main economic catalyst for the city's growth. Lanseria International Airport demonstrates a strong commitment to social responsibility through active involvement in local communities. The airport's Corporate Social Investment programs focus on healthcare, education, and infrastructure development, aiming to uplift surrounding communities.

The Lanseria Airport and Logistics Hub is a cornerstone for regional economic development, with strategic investments and expansion plans poised to enhance its role as a gateway to Africa. Concurrently, its social initiatives and infrastructure projects are designed to foster community development and integration, contributing to a balanced and inclusive growth trajectory.

## 10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure 38. *(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length; (b) the construction of a bridge or similar structure exceeding 50m in length; (c) any development or other activity which will change the character of a site- (i) exceeding 5 000 m2 in extent; or (ii) involving three or more existing erven or subdivisions thereof; or (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority; (d) the re-zoning of a site exceeding 10 000 m2 in extent; or (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

| | |
|---|---|
| Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site? | No |

If YES, explain:

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

In accordance with Section 38 of the NHRA, Dr Johnny Van Schalkwyk has been appointed to conduct a cultural heritage assessment, to determine if the development activities would have an impact on any sites, features or objects of cultural heritage significance. This assessment will be included in the Final BAR.

| | |
|---|---|
| Will any building or structure older than 60 years be affected in any way? | **No** |
| Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)? | **No** |

| | |
|---|---|
| Name of the specialist: | Dr Johnny Van Schalkwyk |
| Qualification(s) of the specialist: | DLitt et Phil (Anthropology), University of South Africa<br>MA (Anthropology), University of Pretoria<br>BA (Hons), Anthropology, University of Pretoria<br>Post Graduate Diploma in Museology, University of Pretoria<br>BA (Hons), Archaeology, University of Pretoria<br>BA University of Pretoria |
| Postal address: | 62 Coetzer Avenue, Monument Park, 0181; Tel: E-mail: |
| Postal code: | 0181 |
| Telephone: | 076 790 6777 |
| E-mail: | jvschalkwyk@mweb.co.za |

| Are any further specialist studies recommended by the specialist? | YES | NO |
|---|---|---|
| If yes, please attached the comments from SAHRA in the appropriate Appendix | | |

Signature of specialist:

Date:

## SECTION C: PUBLIC PARTICIPATION

### 1. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the

opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

| | | |
|---|---|---|
| Was the draft report submitted to the local authority for comment? | **YES** | NO |
| If yes, has any comments been received from the local authority? | YES | NO |

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

| |
|---|
| |

If "NO" briefly explain why no comments have been received

| |
|---|
| The Draft BAR has been submitted to the relevant local authorities. The comment period is 14 April 2025 till the 28 May 2025. Comments received after the review period closes, will be included in the Final BAR. |

## 2. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

| | | |
|---|---|---|
| Has any comment been received from stakeholders? | YES | **NO** |

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

| |
|---|
| |

If "NO" briefly explain why no comments have been received

| |
|---|
| The Draft BAR has been advertised and made publicly available. The comment period is 14 April 2025 till the 28 May 2025. Comments received from interested and affected parties, after the review period closes, will be included in the Final BAR. |

## 3. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed. The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

## 5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice
Appendix 2 – Written notices issued as required in terms of the regulations
Appendix 3 – Proof of newspaper advertisements
Appendix 4 –Communications to and from interested and affected parties
Appendix 5 – Minutes of any public and/or stakeholder meetings
Appendix 6 - Comments and Responses Report
Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report
Appendix 8 –Comments from I&APs on amendments to the BA Report
Appendix 9 – Copy of the register of I&Aps

## SECTION D: RESOURCE USE AND PROCESS DETAILS

**Note:** Section D is to be completed for the proposal and alternative(s) (if necessary)
**Instructions for completion of Section D for alternatives**

1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
4) Each alternative needs to be clearly indicated in the box below
5) Attach the above documents in a chronological order

| | | |
|---|---|---|
| Section D has been duplicated for alternatives (complete only when appropriate) | **0** | times |
| Section D Alternative No. | Preferred Alternative | (complete only when appropriate for above) |

### 1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

**Solid waste management**

| | | |
|---|---|---|
| Will the activity produce solid construction waste during the construction/initiation phase? | **YES** | NO |
| If yes, what estimated quantity will be produced per month? | Undetermined | |
| How will the construction solid waste be disposed of (describe)? | | |

During the construction phase, waste will comprise mainly of excess spoil material from ground excavations and trenching activities, vegetation removal, construction material, general waste from site personnel, paints and solvents and waste water and sewage to be disposed of at registered sites. A recycling programme should be implemented to ensure that the generation of waste that is being disposed of, is minimised from source. It is suggested that two areas on the site, be demarcated for waste disposal. One area will include all waste that *cannot* be recycled, while the other area will include all *recyclable* waste. The building rubble and solid waste (such as sand, gravel, concrete and over burden material) that cannot be used for filling and rehabilitation during the construction phase, must be removed from site and be disposed of safely and responsibly at a licensed landfill site. It is also suggested that the recyclable waste be sorted into different categories such as paper, plastic, glass & tin/ metal and that the appropriate independently appointed parties pick up the recyclable items. The solid waste produced during the construction phase, will be taken and collected from site by means of skip waste containers. This will be the responsibility of the applicant.

Where will the construction solid waste be disposed of (describe)?

The construction solid waste will be disposed of at a registered Municipal landfill site, of the COJ.

| | | |
|---|---|---|
| Will the activity produce solid waste during its operational phase? | **YES** | NO |
| If yes, what estimated quantity will be produced per month? | This cannot be determined at this stage | |

How will the solid waste be disposed of (describe)?

The waste collections under contract by the COJ Municipality will collect the domestic waste on a weekly basis. Recycling will be encouraged, and separate bins for recycling should be provided to the residents. Domestic waste will be disposed of at a registered landfill site.

| | | |
|---|---|---|
| Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity? | YES | **NO** |

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

To be disposed of at licensed landfill site.

**Note:** If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

| | | |
|---|---|---|
| Can any part of the solid waste be classified as **hazardous** in terms of the relevant legislation? | YES | **NO** |

If yes, inform the competent authority and request a change to an application for scoping and EIA

| | | |
|---|---|---|
| Is the activity that is being applied for a solid waste handling or treatment facility? | YES | **NO** |

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

| **Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:** |
|---|
| In accordance with international trends, the management of all waste streams that will be generated at the development should demonstrate support for the Hierarchy of Waste Management (HWM), which aims to promote the re-use and recycling of wastes, giving effect to the concept of 'cradle-to-cradle' waste management. The aim of the Waste Management Plan is to minimize the amount of waste disposed of, and as such, a waste hierarchy is followed: **Prevent → Minimise → Reuse → Recycle → Recover, and only then, → Dispose.**<br><br>All materials that can be recycled must be separated from the general waste and disposed of at a recycling facility. Spoil material which could be used for landscaping purposes will be extracted and kept neatly intact in a controlled manner, to prevent wind and water erosion.<br><br>Recycling solid waste not only facilitates disposal, but conserves energy, cuts pollution, and preserves natural resources. Presently, the applicant has not considered the re-use or recycling of materials as part of the development proposal. During the construction phase, waste should be managed according to the following:<br><br>• Segregate different types of waste as they are generated using different skips where possible (General wastes, non-hazardous wastes and hazardous wastes). At a minimum there should be skips for wood, metals, inert and mixed materials,<br>• Collect maintenance and domestic refuse (scrap metal, packaging materials etc.) in appropriate bins for recycling or send to landfill for disposal in an approved manner.<br>• Recycle suitable spoil, demolition materials, all pruning, and surplus construction material arising from the works on site to avoid the need to transport materials.<br>• Metal waste has commercial value and is to be sold on to a scrap metal contractor for recycling purposes.<br>• Wood waste includes oversized cable reels, wooden packaging boxes, palettes and other wood materials. Palettes in good condition may be reused and are to be returned to materials suppliers on a return system – this will need to be negotiated with the relevant suppliers. Damaged wood waste is to be donated to local communities. |

The following procedures should be adhered to, to control and manage *builder's* waste generated on the premises:

- Rubble material will be removed from the construction site frequently and disposed of at an approved dumping site.
- Sufficient containers will be on the construction site to handle the amount of litter, wastes, rubbish debris and builders wastes generated on the site.
- These containers will be emptied frequently to avoid rodents, insects or any other organisms accumulating on the site and becoming a health hazard to adjacent properties.
- No wastes will remain on the construction site for more than two (2) weeks.

Material to be used as backfill during a later building phase will be covered with a layer of soil to prevent litter from flying away and unhygienic conditions developing on the rubbish dumps. During the operational phase of the established township, waste will be collected by the Tshwane Municipal Services.

**Liquid effluent (<u>other than domestic sewage</u>)**

| | | |
|---|---|---|
| Will the activity produce effluent, *other than normal sewage*, that will be disposed of in a <u>municipal</u> sewage system? | YES | **NO** |
| If yes, what estimated quantity will be produced per month? | | |
| If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)? | YES | **NO** |
| Will the activity produce any effluent that will be treated and/or disposed of on site? | Yes | **NO** |
| If yes, what estimated quantity will be produced per month? | | |
| If yes describe the nature of the effluent and how it will be disposed. | | |

Note that if effluent is to be treated or disposed **on site** the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

| | | |
|---|---|---|
| Will the activity produce effluent that will be treated and/or disposed of at another facility? | YES | **NO** |

If yes, provide the particulars of the facility:

| | | | |
|---|---|---|---|
| Facility name: | | | |
| Contact person: | | | |
| Postal address: | | | |
| Postal code: | | | |
| Telephone: | | Cell: | |
| E-mail: | | Fax: | |

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Water use and wastewater recycling are essential for Environmental Sustainability. The applicant must commit to reducing its water dependency and usage through efficient operations to minimise the developments impact on the region's scarce water resources, and to reduce operating costs. Water usage should be monitored at a company /facility/development level, to ensure consumption targets are achieved. A water conservation program should be developed to identify and manage water saving initiatives. All new facilities and buildings are required to implement water savings initiatives, as dictated by environmental sustainability initiatives, to ensure good practice water efficiency standards are met and exceeded where possible. All staff, contractors, suppliers and leased facilities are made aware of the need to conserve water and minimise consumption. Water conservation measures should include metering water use, installing water-efficient fixtures and technologies, growing drought-resistant landscaping, and making sure that leaks are quickly repaired. To achieve an even more significant impact, onsite alternative water sources and water re-use as cleaned or grey water should be considered.

| | | |
|---|---|---|
| **Liquid effluent (<u>domestic sewage</u>)** Will the activity produce domestic effluent that will be disposed of in a municipal sewage system? | YES | **NO** NO |
| If yes, what estimated quantity will be produced per month? | N/A | |
| If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)? | YES | NO |
| Will the activity produce any effluent that will be treated and/or disposed of on site? | **YES** | NO |

If yes describe how it will be treated and disposed of.

The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The proposed development, situated in the southern precinct, will connect to these existing services. The LIA wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development.

**Emissions into the atmosphere**

| | | |
|---|---|---|
| Will the activity release emissions into the atmosphere? | YES Dust | NO |
| If yes, is it controlled by any legislation of any sphere of government? | YES | NO |

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Limited dust will be generated during the construction phase of the project, due to the movement of construction vehicles and construction activities on site. The dust emissions will have a short term impact duration, and therefore a limited impact in terms of severity and extent. Appropriate dust suppression measures will be implemented to reduce the impacts as required, and will be monitored by the appointed Environmental Control Officer.

## 2. WATER USE

Indicate the source(s) of water that will be used for the activity

| Municipal | Directly from water board | groundwater | river, stream, dam or lake | other | the activity will not use water |
|---|---|---|---|---|---|
| | | | | | |

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate
the volume that will be extracted per month: N/A

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

| Does the activity require a water use permit from the Department of Water Affairs? | **YES** | NO |
|---|---|---|

If yes, list the permits required

Department of Water and Sanitation (DWS) approval in terms of a General Authorisation for water uses under Section 21 (c) and Section 21 (i), issued in terms of Section 39 the National Water Act (Act 36 of 1998) for the following activities:

- Section 21(c) and (i) – various activities within the 500m regulated area (stormwater attenuation, development as a whole etc.).

| If yes, have you applied for the water use permit(s)? | **YES** | NO |
|---|---|---|

If yes, have you received approval(s)? (attached in appropriate appendix): **Not yet**

## 3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

ESKOM

If power supply is not available, where will power be sourced from?

The existing Eskom MV network in the selected area does not have sufficient spare capacity to cater for the new development. A new Eskom MV feeder must be constructed from the existing 88/11KV Lanseria substation to the development site.

## 4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Designing an energy-efficient warehouse is essential to reduce operational costs and improve sustainability. Effective energy-efficient design measures for large warehouse buildings include the following strategies:

Building Envelope and Insulation:

Thermal Insulation: Proper insulation of walls, roofs, and floors can minimize heat gain/loss and improve HVAC efficiency.

Reflective Roofing: Use light-colored or reflective roofing materials to reduce heat absorption, decreasing cooling costs. Install roofing systems that reflect more sunlight and absorb less heat. This helps reduce the cooling load of the building, especially in hot climates.

Natural Lighting

Skylights and Roof Windows: Incorporate skylights or daylighting systems to maximize natural light and reduce the need for artificial lighting during the day.

Daylight Harvesting: Install sensors that adjust artificial lighting based on the amount of natural light entering the building.

Energy-Efficient HVAC System

Zoning and Variable Air Volume (VAV) Systems: Use a zoning approach with VAV systems that allow heating and cooling only in the areas that need it.

Smart Thermostats and Sensors: Implement smart thermostats and motion sensors to adjust heating and cooling based on occupancy.

Seal Gaps and Leaks: Use high-quality seals around doors, windows, and other penetrations to prevent air leakage and maintain thermal comfort.

LED Lighting

Energy-Efficient Lighting: Install LED fixtures with motion sensors to ensure lighting is only on when needed.

Lighting Controls: Use occupancy sensors and programmable lighting controls to minimize energy consumption during non-working hours or in less frequently used areas.

Renewable Energy Integration

Solar Panels: Install photovoltaic panels on the roof to generate electricity and offset the building's energy needs.

Battery Storage: Pair renewable energy systems with battery storage to store excess energy generated during peak sunlight hours for use during off-peak times.

Landscaping

Plant trees or shrubs around the building to reduce heat absorption and lower cooling needs.

Smart Logistics and Storage

Optimized Layouts: Design the warehouse layout for efficient space utilization, reducing the need for excessive heating, cooling, and lighting in unused areas.

Different energy saving strategies will be considered in the detail design phase of the project. The measures will include combinations of a variety of appropriate energy saving and alternative energy generation initiatives, including renewable energy, as relevant to a particular facility/development structure. Specific focus will be placed on the management of new

buildings, to ensure that their design is energy efficient. Conformance with the Green Buildings Policy is important in this respect. Energy efficiency in new buildings will take account not only of the building's design, but also of life-cycle impacts associated with the upstream activities (e.g. the carbon footprint of the materials used for building construction) and the downstream activities (e.g. waste and excess soil produced by construction).

**Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:**

Where possible, the use of alternative energy supply will be promoted and used. This will include:

- Solar lighting.
- Solar water heating.
- Rainwater harvesting
- LED Lighting
- Smart Landscaping

## 5. STORMWATER MANAGEMENT

EDS Engineering Design Services (Pty) Ltd (EDS Engineers) was appointed to compile a Stormwater Management Report for the township application on a portion of Erf 183 Lanseria X 1. See Appendix G for this report.

The new Stormwater Management Plan (SWMP) for the Lanseria X1 Southern Precinct will consist of an integrated network of onsite attenuation ponds, underground stormwater systems, ultimately connecting to the Stormwater Connection Point at the approved Lanseria X 11. On-site stormwater attenuation facilities will be implemented to ensure that post-development runoff rates are reduced to match pre-development runoff rates. The main stormwater culvert system will convey both the upstream runoff from Lanseria X75 and the stormwater generated within Lanseria X1 Southern Precinct to this connection point. It is important to note that attenuation facilities are generally not recommended at airports, as they attract birdlife, posing a risk to aviation safety. As a mitigation measure, the proposed attenuation facilities will incorporate a concrete-lined channel to direct stormwater efficiently to a controlled outlet structure, thereby preventing standing water and reducing the likelihood of bird attraction.

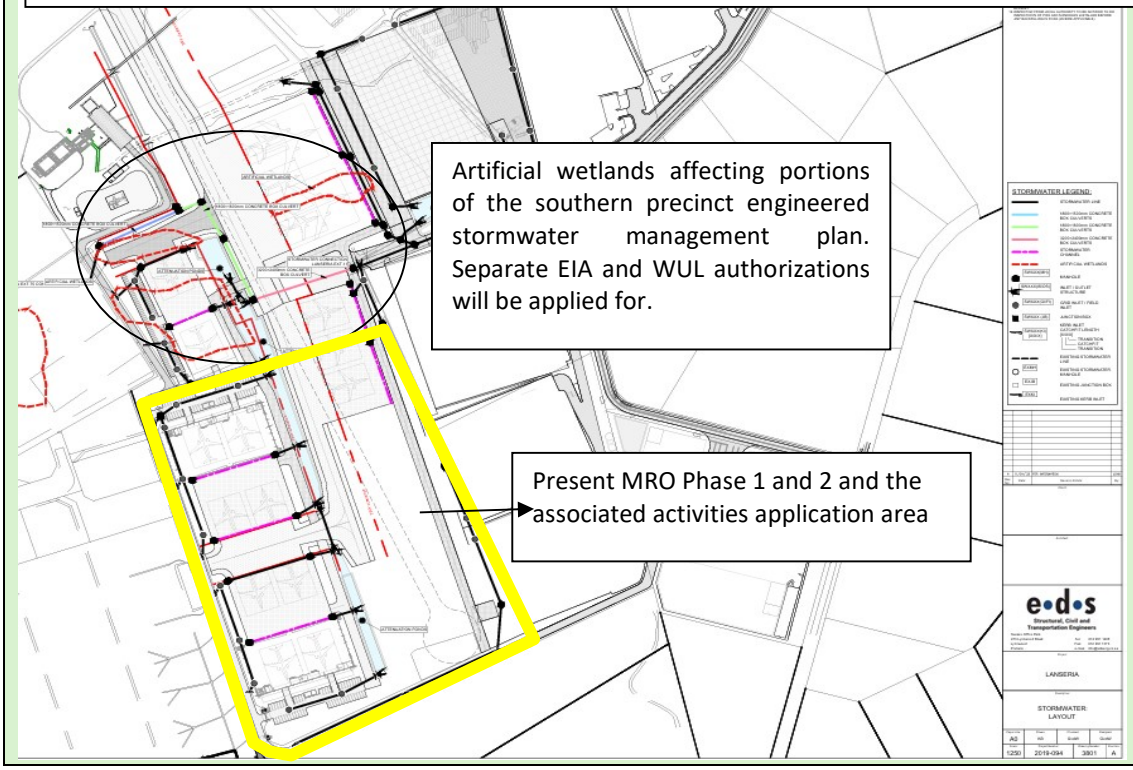
The runoff associated with the development is to be attenuated such that the predevelopment flow for the 5- to 25-year storm events is not exceeded. The post-development stormwater will be managed and discharged in accordance with pre-development conditions through the attenuation pond outlet structure. This system will effectively control flood events with return periods of 1 in 5 years, and 1 in 25 years and a pond overflow weir structure will accommodate the 1 in 100 years storm event. The site is not affected by a floodline.

The NEMA Activities requiring Environmental Authorisation associated with the SWMP will be applied for in a separate application, whilst the deep excavation for the MRO buildings, the re-

alignment of the Charlie taxiway, and the Charlie taxiway apron formalization are being constructed.

**Figure 2: Existing stormwater network See Appendix E of the stormwater management report for this image.**


**Figure 3: Proposed stormwater plan. See Appendix G of the stormwater management report for this image.**



### 6. TRAFFIC AND ROADS UPGRADE AND MANAGEMENT

The new MRO development will be located within the existing township of Lanseria Airport Extension 1, which currently has established access. An additional access point to the southern precinct of Lanseria Airport Extension 1 will be provided through the approved Lanseria Extension 11 township. All necessary servitudes for access and services will be registered in accordance with the provisions set out in the Service Level Agreement.

## SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i).

### 1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

This Draft BAR is presently out for public review. Comments received after the review period (14 April 2025 – 28 May 2025), will be included and addressed in the final BAR.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report (CRR) that must be attached to this report):

### 2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

**Briefly describe the methodology utilized in the rating of significance of impacts**

The potential impacts of the proposed activity were identified through a site visit, specialist and technical studies. Issues raised by IAP's and authority comments (to be received following the review of this draft report), will be used to further refine any identified impacts.

In this Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts. In general, it is recognised that every development has the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are taken into account during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, environmental and technical evaluations.

Previous experience has shown the rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts. Please refer to tables below, for a detailed description on the assessment methodology used. Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required.

The potential impacts of the proposed development have been identified through a desktop study, a site visit, specialist and technical studies.

***SIGNIFICANCE DESCRIPTION METHODOLOGY***

The identification and assessment of environmental impacts is a multi-faceted process, which combines quantitative and qualitative descriptions and evaluations. It involves the application of scientific measurements and professional judgment to determine the significance of environmental impacts associated with the proposed project. The process involves consideration of *inter alia*: the purpose and need for the project; views and concerns of interested and affected parties, general public interest; and environmental legislation and guidelines.

The potential environmental impacts associated with the project have been evaluated according to the nature, extent, duration, intensity, probability, and significance rating of the impacts as explained below.

***Significance of Impact***

The significance of the impact has been determined through the following criteria:

(a) **Nature of Impact***:* This includes a brief description of how the proposed activity will impact on the environment. The nature of the impact is *described* as follows:

*Positive*: Impacts affect the environment in a positive manner, such that natural, cultural and/or social functions and processes are not affected or enhanced

*Negative*: Impacts affect the environment in a negative manner, such that natural, cultural and/or social functions and processes are altered, destroyed, lost, etc.

(b) **Extent***: The* physical and spatial size of the impact, which is classified as:

- Local: The impacted area extends only as far as the activity, e.g. a footprint of proposed activity.
- Site: The impact could affect the whole, or a measurable portion of the above mentioned property.
- Regional: The impact could affect the area including the neighbouring properties, the

transport routes and the adjoining towns.

*(c)* **Duration***:* The lifetime of the impact; this is measured in the context of the life-time of the proposed project.

- Short term (0-5 years):
  The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any proposed phases.
- Medium term (5-15 years):
  The impact will last up to the end of the phases, where after it will be entirely negated.
- Long term (duration of operation):
  The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter.
- Permanent:
  The only class of impact, which is considered non transitory. Mitigation, either by man or natural process, will not occur in such a way or in such a time span that the impact can be considered transient.

(d) **Probability**

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

- Improbable: The possibility of the impact occurring is very low, due to the circumstances, design or experience. Probable: There is a possibility that the impact will occur to the extent that provisions must be made to mitigate the impacts.
- Highly probable: It is most likely that the impacts will occur at some or other stage of the development. Plans must be drawn up before the undertaking of the activity.
- Definite: The impact will take place regardless of any prevention plans, and thus mitigatory actions or contingency plans must be relied on to contain the effect.

(e) **Intensity**

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project. Does it destroy the impacted environment, alter its functioning, or render it slightly altered? These are rated as:

- None: No known impacts

- Low: The impact alters the affected environment in such a way that the natural processes or functions are not affected.
- Medium: The affected environment is altered, but function and process continue, albeit in a modified way.
- High: Function or process of the affected environment is disturbed to the extent that it temporarily or permanently ceases.

**Determination of significance**

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required. The classes are rated as follows:

- No significance: The impact is not substantial and does not require any mitigatory action.
- Low : The impact is of minimal importance, but may require limited mitigation.
- Medium: The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
- High: The impact is of great importance. Failure to mitigate, with the objective reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

**Status**

Taking all the criteria into account, the status of the impact will either be classified as a positive or negative impact.

- **Reversibility Rating**
- **Irreversible** (the activity will lead to an impact that is permanent)
- **Partially reversible** (The impact is reversible to a degree e.g.
- acceptable revegetation measures can be implemented but the pre-impact species composition and/or diversity may never be attained. Impacts may be partially reversible within a short (during construction), medium (during operation) or long term (following decommissioning) timeframe
- **Fully reversible** (The impact is fully reversible, within a short, medium or long-term timeframe).

**Management Actions:**

- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative
- impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set.
- This will include a programme for monitoring and reviewing the

recommendations to ensure their ongoing effectiveness.

**Mitigation:**

- The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested.

- All impacts are assessed without mitigation and with the mitigation measures as suggested.

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| **PRE-CONSTRUCTION PHASE** | | | | |
| General mitigation to be incorporated into the design and planning phase of the development, include the following:<br><br>• Conduct pre-clearing inspections to ensure no protected species occur on site.<br>• Mark out No-Go zones for adjacent vegetation or artificial wetlands.<br>• Implement erosion and sediment control (e.g., silt fencing, mulch, or geotextiles).<br>• Strip and store topsoil separately from subsoil, in low-compaction berms under 2m high.<br>• Identify and designate haulage and delivery routes in advance to avoid random vehicle movement.<br>• Use geotextile mats or crushed stone for temporary access to reduce soil compaction.<br>• Install stormwater diversion berms to direct runoff away from sensitive areas.<br>• Secure perimeter fencing, lighting, and signage must be installed before works begin.<br>• If contamination is found, implement a remediation plan before construction begins.<br>• Develop a phased construction plan in consultation with the airport.<br>• Ensure aviation safety buffers and airspace restrictions are respected at all times.<br>• Ensure all licenses and authorizations (e.g., environmental authorisation, water use licence if applicable) are granted and conditions integrated into the Environmental Management Program (EMPr). | | | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| **CONSTRUCTION PHASE** | | | | |
| ***Impacts associated with Geotechnical Suitability***<br><br>Nature of Impact: Soil erosion, modification or original soil conditions, compaction of soil caused by construction vehicles and workers. | Negative | See Section 11 of the Geoid Geotechnical Engineers PTY LTD report (GGE/23021/2) for the Component Assessment and Recommendations for the site. | Medium | Low |
| ***Impacts to the artificial Wetlands north of the application study area*** | N/A | Allowing wetlands within airport operational boundaries conflicts directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property.<br><br>During construction activities for the MRO activities, the following mitigation | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | measures can be implemented as part of Duty of Care to the receiving environment:<br><br>• Install silt fences, sediment traps, and temporary retention ponds to prevent sediment entering the artificial wetland<br>• Stabilize exposed soils immediately after earthworks with mulch, grassing, or geo-fabric.<br>• Use bunded, lined areas for machinery maintenance and hazardous materials.<br>• Construct temporary swales or oil traps to filter runoff before it exits the site<br>• Construct on-site stormwater attenuation dams and permeable paving.<br>• Design energy dissipators at outlets to reduce flow velocity.<br>• Maintain pre-development flow volumes and durations as part of Sustainable Drainage System (SuDS) designs.<br>• Create vegetative buffer zones between the site and the wetland.<br>• Fence off and demarcate no-go buffer zones on the ground.<br>• Train contractors on EMPr compliance and penalties for transgressions. | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| ***Bulk Earthworks: Removal of vegetation causing soil erosion***<br>With the removal of vegetation during construction, soils will be exposed to wind and rain and topsoil may be lost. This may result in erosion and sedimentation, following rainfall and subsequent sheet wash. In addition, the soils will be traversed by a number of vehicles during the construction phase which is likely to result in soil compaction. This may result in the degradation of the soil | Negative | • Clearing of vegetation to only be undertaken immediately preceding commencement of construction;<br>• Care must be taken to ensure that runoff is well dispersed to limit erosion;<br>• The careful position of soil piles, and runoff control, during all phases of development, and planting of some vegetative cover after completion (indigenous groundcover, grasses etc.) will limit the extent of erosion occurring on the site.<br>• Appropriate erosion control measures must be implemented to ensure that no erosion is taking place. At the first sign of erosion the necessary remedial action must be taken;<br>• Temporary stabilisation measures (e.g., silt traps) should be implemented at the first signs of any erosion; and<br>• Any additional impacted areas must be rehabilitated with indigenous vegetation should construction affect areas outside of the approved footprint<br>• All soils compacted because of construction activities falling outside of development footprint areas should be ripped and profiled. Special attention should be paid to alien and invasive control within these areas.<br>• Once earthworks are complete, disturbed areas are to be stabilised with | Medium | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| over time. | | mulch, straw or other methods approved by the ECO this purpose. | | |
| ***Bulk Earthworks: Site Clearance and Removal of vegetation***<br>▪ Vegetation clearance/habitat destruction<br>▪ Spread and establishment of alien invasive plant species<br>▪ Negative effect of human activities on fauna and road mortalities<br>▪ Loss of biodiversity | Negative | ▪ Any faunal species encountered during the construction phase should be allowed to move freely away from the construction areas or alternatively re-located by a suitably qualified person (especially pertinent to any snakes). • All temporary stockpile areas, litter and dumped material and rubble must be removed and disposed of at a licensed land fill facility. Proof of safe disposal must be obtained and kept on record for monitoring purposes.<br>▪ Undeveloped areas that were degraded due to human activities must be rehabilitated using indigenous to the area vegetation.<br>▪ Hazardous chemicals must be stored on an impervious surface accompanied by Safety Data Sheets (SDS) and protected from the elements. These chemicals must be strictly controlled, and records kept of when it was used and by whom.<br>▪ Limit human activity in the no-development areas to the minimum required for ongoing operation.<br>▪ Any alien plant observed should be reported to the environmental manager and should be removed as soon as possible. | Medium | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | ▪ Regular monitoring (monthly) for damage to the environment as well as establishment of alien plant species must be conducted.<br>▪ Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. (Particular attention must be paid to imported material).<br>▪ Only indigenous plant species, preferably species that are indigenous to the natural vegetation of the area, should be used for landscaping in communal areas. As far as possible, plants naturally growing on the development site, but would otherwise be destroyed during clearing for development purposes, should be incorporated into landscaped areas.<br>▪ Where soil disturbance is required for the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed. | | |
| ***Invasion of alien vegetation**:*<br>*Clearing for the construction phase of the project, as well as for maintenance during the* | Negative | • On-going removal and disposal of alien vegetation species.<br>• Alien plant regrowth must be monitored, and any such species must be removed at regular intervals throughout the construction phase;<br>• Only local topsoil maybe used and if any is imported, this should be certified | Medium | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| *operation phase, will result in soil disturbance and reduced cover of indigenous vegetation, greatly increasing the chance of the establishment of alien invasive plants. However, if mitigation measures are implemented, there will be less alien vegetation, and less change of spread of alien vegetation* | | alien plant free; and<br>• Where soils are slow to revegetate, these areas should be grubbed and planted with species suited to the region. | | |
| **Top Structure construction** (brick work, steel work, cement mixing, plastering, thatching, paving etc.) – Hydrocarbon spills and leaks | Negative | • All construction materials, including fuels and oil, must be stored in demarcated areas that are contained within berms / bunds to avoid spread of any contamination into storm water systems. Washing and cleaning of equipment should also be done in berms or bunds, in order to trap any cement and prevent excessive soil erosion. These sites must be re-vegetated | Med | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
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| from machinery<br><br>Impacted environment: Soil, ie. Soil pollution<br>▪ Pollution Incidents<br>▪ Storage of hydrocarbons | | after construction has been completed.<br>• The Contractor must ensure that all liquid fuels and oils are stored in tanks with lids, which are kept firmly shut and under lock and key at all times. The capacity of the tank must be clearly displayed and the product contained within the tank clearly identified using the emergency information system detailed in SABS 0232 part 1. Fuel storage tanks must have a capacity not exceeding 80 000 liters, and must be kept on site only for as long as fuel is needed for construction activities, on completion of which they shall be removed.<br>• In the event of a hydrocarbon spill, the source of the spillage must be isolated and the spillage contained. The area must be cordoned off and secured. The Contractor must ensure that there is always a supply of absorbent material readily available to absorb/ breakdown or where possible, be designed to encapsulate minor hydrocarbon spillages. The quantities of such materials must be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill. | | |
| **Hydrological Impacts:**<br><br>• Pollution of surface | Negative | • Chemicals used for construction must be stored safely on site and surrounded by bunds. Chemical storage containers must be regularly inspected so that any leaks are detected early; | Med | Low |

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| water resources –Spills and leaks from any plant during the construction phase of the development could potentially impact the downstream water quality via chemical pollution.<br>• Altered runoff patterns, leading to increased erosion and sedimentation of the adjacent seep wetland. | | • No re-fuelling of construction vehicles or maintenance activities to occur outside of the site boundaries.<br>• All fuel storage areas, wash bays and vehicle servicing areas must be located within bunded areas with a separate dirty water handling system and oil/grease trap. General sediment traps should also be included where suitable;<br>• Toilets must be emptied regularly and before any extended site shutdown or builder's break;<br>• Domestic waste bins/skips to be made weather proof;<br>• Littering and contamination of water sources during construction must be prevented by effective on-site management;<br>• Stockpiles to be located on the eastern side of the property;<br>• All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds; and<br>• Once construction has been completed the disturbed areas must be grubbed and levelled, i.e., no raised areas should occur that would divert or impound any surface water flows<br>• Spill kits to be made available at areas of possible spillages of hazardous | | |

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| | | substances;<br>• Remediation of spillages must be conducted on a continual basis;<br>• Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time;<br>• No waste water or hazardous substances will be disposed of into the surrounding environment;<br>• Sediment depositions should be regularly removed from the swale, to prevent pollution of the runoff from contaminants contained therein.<br>• Cover any wastes that are likely to wash away or contaminate storm water. | | |
| **<u>Hydrological Impacts: Ground Water Quality</u>**<br><br>Accidental spillages of diesel, oil or other hazardous substances could contaminate soil, leach into the groundwater or reach | Negative | ▪ Spill kits to be made available at areas of possible spillages of hazardous substances;<br>▪ Remediation of spillages must be conducted on a continual basis and within 24h of spillage;<br>▪ Maintenance of vehicles may not be conducted on site;<br>▪ Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time;<br>▪ No waste (hazardous or general) will be disposed of in excavated trenches; | Med | Low |

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| downstream water bodies through run-off. | | ▪ No waste water or hazardous substances may be disposed of into the surrounding environment;<br>▪ Hazardous substances will be stored in bunded areas with a capacity of 110 % of the contents volume<br>▪ The stormwater management plan compiled for the development must be correctly implemented | | |
| **<u>Solid Waste Pollution</u>**<br><br>The construction phase of the activity will produce construction waste in the form of discarded construction material (e.g., packaging material etc.), excess soil/spoil (from levelling) and a large volume of cleared bush vegetation | Negative | • Construction material must be reused or recycled where possible (e.g. mulching of cleared vegetation);<br>• Vegetation that is cleared from the site (and is not replanted or relocated as per the recommendations of the specialist) must be removed to a registered garden refuse site;<br>• Staff must be trained to implement waste control and to identify hazardous waste;<br>• Other waste to be removed to a licenced landfill site;<br>• General good house-keeping must be implemented. No litter to remain on site;<br>• Spills must be avoided during transportation of material; | Med | Low |

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| (alien vegetation). The incorrect management of these wastes may result in pollution of the surrounding natural areas. | | • Disposal certificates must be obtained for all waste disposals; and<br>• Sufficient and appropriate weather- and scavenger-proof bins must be made available on-site during construction and removed/emptied on a daily basis<br>• Provision of adequate numbers of litter bins throughout the development; and<br>• Promoting the recycling of waste, with specialist service providers appointed to remove the waste from site.<br>• Records of all waste taken off site and disposed of must be kept as evidence.<br>• Burning of waste material will not be permitted. | | |
| **<u>Impact Resulting from Material Stockpiling</u>**<br><br>During the construction phase, stockpiling of construction materials on a property could result in erosion and mobilisation of the materials towards the | Negative | • The Contractor must implement a suitable plan for stockpile management as storage outside of the property boundaries will not be permitted;<br>• Where possible, any excavated material must be reused in construction and/or an investigation into a third party who could use the material beneficially must be undertaken to minimise waste to landfill. All unused/excess fill material must be removed from the site to a registered waste disposal site. | Low | Low |

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| downstream freshwater resource, resulting in sedimentation and other impacts. Furthermore, the incorrect stockpiling of material outside of the approved development area will result in further loss of indigenous vegetation and negatively impact on the open space areas adjacent to the site | | | | |
| **<u>Increased Noise and Disturbance</u>**<br><br>It can be expected that there will be an increase in noise levels during the site | Negative | • Construction vehicles to be in sound working order and fitted with mufflers if necessary;<br>• The Contractor must adhere to the relevant noise regulations and limit noise to within standard working hours;<br>• As construction workers operate in a noisy environment, it must be ensured that their working conditions comply with the requirements of the | Med | Low |

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| preparation and construction phase of the development. The increase in noise will be associated with the operation of construction equipment, labourers and vehicles, especially the bulldozer used to clear vegetation, build platforms, dig trenches, etc. | | Occupational Health and Safety Act (Act No 85 of 1993). Where necessary, ear protection gear must be worn;<br>• Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery;<br>• Limit construction to daylight hours; and<br>• Restrict unnecessary noise (e.g., portable radios, vehicle radios, whistles etc.). | | |
| **<u>Visual Impacts</u>**<br><br>Construction activities will result in the commissioning of bulk earthwork machinery and vehicles. Unkept site due to littering and illegal dumping on site and surrounding areas. Unsightly | Negative Subjectively perceived | • Good house-keeping to be implemented on site;<br>• No visually intrusive practices are allowed on site or in the surrounding areas;<br>• Any reflective construction material must be stored and placed in such a manner that it does not reflect sunlight towards the surrounding properties;<br>• Construction materials to be stored neatly and waste to be collected on a regular basis;<br>• Erosion, waste vegetation and dust to be mitigated as per the abovementioned mitigation measures; and<br>• All disturbed areas surrounding the proposed development must be | Medium | Low |

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| construction waste pile may be visually intrusive. | | rehabilitated and all alien vegetation and weeds removed from these areas.<br>▪ Light pollution should be minimised. Lighting is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents. | | |
| **<u>Employee Safety and Security</u>***:*<br><br>A construction site can be a dangerous place and thus could result in harm to people and property and by their nature act as a magnet to the unemployed, resulting in people gathering at the site. | Negative | • A fence must be constructed around the site prior to commencement of construction<br>• Signs should be erected on all entrance gates indicating that no temporary jobs are available, thereby limiting opportunistic labourers and crime.<br>• The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations<br>• All structures that are vulnerable to high winds must be secured (including toilets).<br>• Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times.<br>• The Contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near public roads. | Medium | Low |

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| | | • Necessary Personal Protective Equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. hard hats, safety boots, masks etc.).<br>• All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA).<br>• An environmental awareness training programme for all staff members shall be put in place by the Contractor. Before commencing with any work, all staff members shall be appropriately briefed about the EMPr and relevant occupational health and safety issues.<br>• All construction workers must be issued with ID badges and clearly identifiable uniforms.<br>• Access to fuel and other equipment stores is to be strictly controlled.<br>• Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimised. This will also ensure that potential liabilities and damage to life and the environment are avoided. | | |

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| | | • Adequate emergency facilities must be provided for the treatment of any emergency on the site.<br>• The nearest emergency service provider must be identified during all phases of the project as well as its capacity and the magnitude of accidents it will be able to handle. Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and the construction crew camps at all times.<br>• The Contractor must have a basic spill control kit available at each construction crew camp and around the construction site. The spill control kits must include absorptive material that can handle all forms of hydrocarbon as well as floating blankets / pillows that can be placed on water courses.<br>• The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas.<br>• Washing and toilet facilities shall be provided on site and in the Contractors camp.<br>• Adequate numbers of chemical toilets must be maintained in the Contractors camp to service the staff using this area. At least 1 toilet must be available per | | |

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| | | 10 workers using the camp. Toilet paper must be provided.<br>• The chemical toilets servicing the camp must be maintained in a good state, and any spills or overflows must be attended to immediately.<br>• The chemical toilets must be emptied on a regular basis.<br>• No loitering around the site for people seeking temporary employment is to be allowed. | | |
| **Impact on Archaeological and/or Paleontological Resources** | Negative | • A Heritage Assessment is presently being conducted by Dr J Van Schalkwyk Heritage Consultant. No sites or artefacts of heritage importance are anticipated to occur on site.<br>• Although highly unlikely, it is possible that the discovery or exposure of archaeological artefacts may occur during the construction phase. Should this be the case, it is also possible that these heritage resources will be damaged or lost during the construction phase. | Low | |
| **Impacts on Air Quality: Dust Creation** | Negative | • Ensure that exposed areas are dampened with non-potable water following vegetation clearance;<br>• Construction work to be halted during periods of strong wind; | Medium | Low |

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| The construction activities will increase the potential for dust especially from the clearing of vegetation. During the construction phase of the activity, materials will be moved to and from the project site and this could result in dust pollution not only from the materials, but also from the construction vehicles which will be operating on site. The effects of dust will be exacerbated during high wind conditions. | | • The loading of materials must be done with the lowest drop height and those vehicles carrying dusty materials must be securely and properly covered before they leave the site;<br>• Any complaints or claims emanating from the lack of dust control must be attended to immediately by the Contractor; and<br>• Maintain vegetation as a windbreak in the area facing the prevailing wind direction until the completion of construction. | | |
| **<u>Impacts on Health, Safety and Fire Risk</u>** | Negative | • All relevant Health and Safety legislation as required in South Africa should be strictly adhered to, including but not limited to the Occupational Health and Safety Act, 1993 (No. 85 of 1993); | Medium | Low |

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| The use of construction machinery during the construction phase poses a potential risk to the health and safety of people working at the construction site. The movement of construction vehicles also increases the risk of accidents along provincial roads. The risk of accidents, fires and potential injuries must be mitigated effectively. | | • Smoking should be restricted to a designated smoking area;<br>• Ensure availability of fire extinguishers; and<br>• All employees must be aware of emergency/ contingency plans to ensure an understanding of the hazards and procedures required during an emergency situation | | |
| **<u>Construction Traffic and Road Impacts</u>**<br><br>During construction, there will be an increase in the number | Negative | • All drivers to have the necessary driving permits to operate the plant/vehicles;<br>• All traffic laws must be obeyed at all times;<br>• Avoid transportation of construction material during peak hours;<br>• Any abnormal loads must be approved with the traffic authorities and must | Medium | Low |

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| of vehicles using the nearby roads, including heavy construction vehicles. This may result in damage to the roads. The construction vehicles could also impede other road users at certain sections of the roads to the site if not adequately managed and controlled. | | comply with any conditions imposed by the authorities;<br>• Avoid transportation of construction material during peak hours;<br>• The Contractor must employ flag staff in order to prevent on-site accidents;<br>• Speed must be limited to 30 km/h on site;<br>• Suitable temporary signage be erected, warning motorists of the presence of heavy construction vehicles;<br>• Overloading of vehicles must not occur; and<br>• Any damage to existing access roads as a result of the construction activities must be immediately repaired<br>• The movement of construction vehicles during the construction period is to be carried out in such a manner so as not to interfere unnecessarily or improperly with the public convenience. Traffic signage acknowledging the presence of a construction site must be provided.<br>• Proper and adequate lanes to allow for ingress/egress to be provided.<br>• Access to the construction area must be predetermined and used during constructions.<br>• The working area and all exposed trenches must be fenced off with barrier netting, danger tape & droppers. | | |

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| | | • Excavated earth material should not be dumped/ stockpiled in the road in any way that will obstruct traffic flow. | | |
| **Infrastructure and Services**<br><br>Additional pressure placed on existing municipal infrastructure to accommodate the new Industrial 3 township | Negative | • Integrity of existing services to be ensured.<br>• Any damages to existing services infrastructure must be repaired immediately. | Low | Low |
| **Employment Creation and Local Business Development**<br><br>The construction phase of the proposed development will create temporary jobs for locals within the area. Where possible, materials must be | Positive | • The project will create a number of job opportunities for the local population. Any available jobs will provide an immediate positive impact on the employment and income situation within the study area. This phase of the development will provide the most benefits in terms of sustained employment for the duration of the project and increase in income. Initially, the site preparation phase will employ large construction vehicles and equipment for landscaping, grading and levelling, the cutting of access roads for these vehicles and laborers to access the site. This means that many | | |

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| sourced from local businesses and this will result in a boost of the local economy of the immediate vicinity and surrounding areas. | | skilled workers will be necessary to operate front-end loaders, excavators, bulldozers and backhoes and other vehicles. In addition to this, unskilled labourers will still be necessary for other tasks. This phase of the development will therefore have a short-term major positive impact on the employment and income at the local level.<br>• Employ local people wherever possible;<br>• Purchase materials from local businesses wherever possible; and<br>• Equal opportunities must be given to women where possible. | | |
| **OPERATIONAL PHASE** | | | | |
| **<u>Impact on the artificial wetlands in the LIA</u>** | Negative | An airport cannot have wetlands within its operational boundaries due to serious aviation safety, infrastructure, and regulatory risks. Wetlands conflict with the primary function of an airport, which is to ensure safe and efficient aircraft operations.<br><br>The following mitigation measures will apply:<br>• Install oil-water separators on stormwater outflows. | Medium | Low |

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| | | • Use bunded wash bays and hazardous material storage areas.<br>• Implement a spillage response plan and conduct staff training.<br>• Maintain a temporary vegetative buffer zone between the development and wetland edges.<br>• Establish waste management protocols with proper segregation and disposal.<br>• Conduct regular inspections and clean-up operations along wetland edges.<br>• Secure bins and waste areas from wind and rainfall.<br><br>The site is within a Smart City and EMF-regulated zone, so alignment with local biodiversity and sustainability guidelines is critical. | | |
| **<u>Potential Pollution</u>**<br><br>Poor maintenance of the sewage infrastructure, poor waste disposal practices and/or any significant vehicle/machinery breakdown | Negative | • Appropriate waste management, as described herein and the EMPr, must be implemented for the operation of the development;<br>• Onsite sewage infrastructure must be regularly serviced and maintained;<br>• Any pollution from leaks or spills must be immediately cleaned and removed from the warehouse development. | Low | Low |

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| in or around the development could result in pollution of the downstream water course. | | | | |
| **<u>Utilisation of Water Resources</u>**<br><br>The proposed development will rely entirely on water from the municipal supply to meet the daily consumption demands as estimated by the applicant. This will place additional pressure on the water resources for the area. | Negative | • Excessive use of water to be avoided wherever possible;<br>• Ensure that all water reticulation infrastructure is maintained regularly to avoid leaks;<br>• Rainwater harvesting must be implemented to collect rainwater from the warehouse drains and gutters;<br>• Make use of water saving products such as water saving toilets with a dual-flush valve, water saving taps with spray cartridges, water-saver shower heads and timed turn-off taps; and<br>• Monitor water consumption to ensure water is utilised within the volumes made available by any relevant municipal drought regulations. | Medium | Medium |
| **<u>Electricity Usage</u>**<br><br>The proposed development will result in increased | Negative | • Install solar PV systems, energy-efficient lighting and HVAC, and energy management systems.;<br>• LED lighting must be implemented to reduce electricity consumption; and | Medium | Medium |

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| electricity usage. | | | | |
| **<u>Impact on Service Availability</u>**<br><br>The proposed development will add to the pressure on the LIA X 1 service availability by increasing the amount of water use, effluent discharge and solid waste generation. This will put additional pressure on existing municipal infrastructure such as water supply pipelines, sewage infrastructure (piping and treatment works) and contribute to filling of landfill sites. | Negative | • The LIA MRO facility is being developed as part of the LIA expansion project, with integrated bulk infrastructure planning underway.<br>• Ensure adequate stormwater capacity in the design, including retention ponds, sediment traps, and oil-water separators.<br>• The development should use non-potable recycled water for washing and irrigation, install low-flow systems, and consider onsite water harvesting or reuse systems.<br>• Implement traffic flow planning, dedicated service lanes, and consider electric ground support vehicles to reduce emissions. | Low | Low |

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| **<u>Traffic Impacts</u>**<br><br>The traffic associated with the operational development will impact on road users of the surrounding roads. | Negative | • Access to the site will be gained from the approved Lanseria X 11 township and the LIA. The required road upgrades have been approved in the X 11 TIA. Access within the LIA is included in the preferred layout plan of the MRO facility.<br>• The increased volume of heavy and light vehicle traffic on access roads such as Pelindaba Road (R512), Malibongwe Drive, Elandsdrift Road and internal airport service routes, including daily movements of delivery trucks, service vehicles, staff and visitors may cause slower travel times, congestion at peak hours, safety concerns for mixed-use roadways (especially where public and industrial traffic mix).<br>• Entry and exit to the new MRO facility will share existing airport gates and service entrances, possibly not designed for high-frequency, heavy-duty use.<br>• Impact causing bottlenecks at control points or security gates, may lead to road user frustration, delays, and potential safety risks due to turning movements, queuing at gates, or lack of acceleration/deceleration lanes.<br>• Repeated movement of heavy-duty trucks, fuel tankers, and equipment transporters may accelerate pavement wear and tear, especially on secondary or unpaved feeder roads causing potholes, dust, increased vehicle | Medium | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | maintenance costs, and risk of accidents especially in wet conditions. | | |
| **<u>Solid Waste Pollution</u>**<br><br>During the operational phase, the proposed development will produce solid waste. The incorrect management of waste will have a negative impact on the surrounding environment as it can cause unnecessary pollution. | Negative | • Waste recycling must be integral to the implementation and occupation of the hangars.<br>• All waste must be disposed of at licensed landfill site.<br>• General good house-keeping should be practiced on site;<br>• Recycling and reusing of plastic and cardboard must be promoted to reduce the amount of waste being disposed of at the municipal transfer station.<br>• Generation of Hazardous Industrial Waste from used oils and lubricants, oil and fuel filters, solvent-soaked rags, empty chemical containers, paints and sealants, if not properly stored and disposed of, can contaminate soil and water, and pose a risk of fire hazards and air pollution from volatile materials.<br>• Establish clearly marked hazardous waste zones,<br>• Use bunded storage for containers,<br>• Implement a waste manifest system for traceability.<br>• Non-Hazardous Industrial Waste from scrap metal (panels, wires, fasteners), packaging materials (cardboard, foam, plastics), worn-out tools and PPE, general | Low | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | waste from offices and staff areas may accumulate on site if collection services are not frequent or properly separated. Waste segregation stations must be established onsite,<br>• A contract with recyclers for scrap and packaging must be established for the MRO facility that schedules frequent waste pickups aligned with the MRO operational demand.<br>• Storing waste in uncovered areas or without containment can result in leachate runoff, odour issues, and vermin attraction (which is a serious aviation safety risk).<br>• Improper handling of oily rags or flammable wastes can cause spontaneous combustion.<br>• Use covered, ventilated, and labelled containers,<br>• Store flammables in fire-rated lockers,<br>• Train staff on hazardous waste handling procedures.<br>• Potential for illegal dumping, spills during transport, or reliance on unlicensed waste contractors must be mitigated through appointing licensed waste transporters and disposal facilities, and maintaining records of all disposal activities and weighbridge slips. | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | • During peak maintenance seasons, hangars may generate surges in waste, leading to overfilled containers, delays in removal, or unsafe stockpiling. Waste generation trends must be monitored during these seasons. Waste service agreements must be scalable and contingency protocols for peak periods must be implemented.<br>• Install waste containment netting and sediment traps,<br>• Conduct regular wetland edge inspections.<br>• The Lanseria Smart City context encourages green building practices and circular economy principles, meaning waste minimization and recycling targets should be embedded in the operational strategy.<br>• Onsite waste management practices must align with the airport's overall Environmental Management System (EMS) and Civil Aviation Authority safety standards. | | |
| **<u>Surface Water Pollution</u>** | Negative | • The operational development of a new Maintenance, Repair, and Overhaul (MRO) facility at Lanseria International Airport (LIA) presents risks of surface water pollution, particularly due to the proximity of stormwater-created artificial wetlands, and the airport's extensive impervious surfaces. | Medium | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | • Leaks/spills from aircraft fuel systems, hydraulic fluids, and ground service vehicles and improper handling of used oils or oily rags during aircraft maintenance entering into stormwater channels leading to artificial wetlands or downstream water resources may cause water pollution, and disruption of natural biodegradation processes. Hydrocarbon interceptors in stormwater drains must be installed.<br>• Use bunded and roofed areas for all fuel and oil storage at the MRO hangar.<br>• Implement spill response protocols and ensure staff training.<br>• Bioaccumulation of Aircraft component washing and stripping operations (e.g., chromium, lead, cadmium) causing metal filings and particles from hangar floor cleaning or machining may cause toxicity in downstream freshwater resources and aquatic sediment.<br>• Enforce closed-loop washdown systems or install wastewater pre-treatment prior to discharge.<br>• Regularly clean and vacuum hangar floors to prevent runoff transport.<br>• Aircraft exterior cleaning and degreasing operations improperly disposed cleaning fluids or discharge into storm drains, can introduce phosphates, surfactants, and volatile organic compounds (VOCs) into stormwater. | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | Bbiodegradable, aviation-approved cleaning agents must be used in the hangars.<br>• Prohibit direct washing of aircraft on open surfaces—use designated wash bays with wastewater capture.<br>• Enforce covered bins and regular waste removal.<br>• Conduct weekly site clean-ups around drains and perimeters.<br>• Integrate Sustainable Urban Drainage Systems (SuDS) like Swales, attenuation ponds, permeable paving, and buffer vegetation zones to maintain natural flow paths where possible.<br>• Cumulative loading of nutrients, hydrocarbons, and metals into downstream water bodies (e.g., Crocodile River system) may require an Operational Water Quality Monitoring Plan where water sampling at key outfalls (pH, TSS, hydrocarbons, COD, metals) is recorded every 4 months.<br>• The stormwater management plan compiled by EDS civil Engineers PTY LTD (Appendix G) has ensured that the pre-development runoff does not exceed post-development runoff with specific mention of peak discharge and runoff volumes.<br>• Stormwater structures will be equipped with dissipating structures which will | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | remove silt and litter before stormwater entry into the downstream freshwater resource.<br>• The onsite attenuation pond outlet will include an erosion and energy dissipation structure as approved by the JRA and designed in accordance with the NTC Road drainage Manual.<br>• The use of Sustainable Drainage Systems (SuDS) to manage stormwater is considered important for the proposed development as there will be an increase in hardened surfaces within close proximity to the system. SuDS will assist in preventing significant impacts on the hydrological functioning of the system, reduce the risk of flooding during high flow periods and reduce the risk of increased erosion. | | |
| **<u>Visual Impacts</u>** | Negative | • Industrial Bulk and Massing from large hangars, maintenance bays, and associated infrastructure with high roofs and wide façades will dominate the visual skyline of the Lanseria area requires architectural articulation (façade detailing, colour variation, roof breaks).<br>• Use directional, downward-facing LED lighting with timers or motion sensors.<br>• Comply with ICAO and airport-specific aviation lighting standards to reduce | Low | Low |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | offsite glare.<br>• Provide screened utility yards with visual shielding (walls, hedges, or fencing with greenery).<br>• Align signage design with precinct signage guidelines or local signage bylaws.<br>• Use uniform materials and palettes, and integrate signage into architectural elements where possible.<br>• Preserve view corridors by aligning building orientation with natural topography.<br>• Use stepping in height, green roofs, or vertical greening systems to soften large surfaces.<br>• Visual quality directly affects property values, investor confidence, and airport user experience. | | |
| **<u>Employment Creation and Local Business Development</u>** | Positive | *Alternative 1: The MRO facility:* The development of a new Maintenance, Repair, and Overhaul (MRO) facility at Lanseria International Airport (LIA) is expected to have significant positive socio-economic impacts, particularly in the areas of employment creation and local business development. Estimated job creation during the construction phase will be 100–300 temporary jobs, and 50–150 permanent jobs. | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | Jobs will be created in civil engineering, construction trades, equipment supply, and site services. There will also be opportunity for short-term employment of local labourers, particularly from nearby communities like Cosmo City, Diepsloot, and Zandspruit.<br><br>The MRO facility will require a range of goods and services such as catering, cleaning, waste removal, security, equipment supply, uniforms, parts, and materials, ICT services, administration support, and facility management. These inputs will boost demand for local SMMEs, particularly those in the Lanseria Smart City support zones and surrounding townships and will act as a catalyst for logistics and warehousing development, especially for local suppliers to the aviation sector.<br><br>*Alternative 2: Alternative building technologies* often require new or specialized skills, such as training in sustainable materials, energy-efficient design, or green building practices. This demand for skilled labor can:<br>i. Create job training programs to teach local workers how to build using alternative methods like straw bale construction, earth bag building, or | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | prefabricated modular homes.<br>ii. Provide construction jobs for laborers, carpenters, masons, and electricians who need to adapt their skills to new materials and methods.<br>iii. Foster apprenticeships and certification programs that allow local workers to gain credentials in sustainable construction practices, helping them enter the green construction sector.<br>Material Sourcing and Production: Alternative building often involves locally sourced materials such as bamboo, recycled materials, or reclaimed wood. This can:<br>i. Create local supply chains for materials, stimulating the economy by sourcing raw materials, processing them, and manufacturing building components locally.<br>ii. Provide jobs in material extraction, processing, and distribution, reducing the reliance on imported building supplies and boosting local industries.<br>iii. Encourage innovation in local material development, leading to new local businesses focused on producing sustainable building materials. | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | Alternative building methods emphasize energy efficiency, requiring local workers for tasks such as:<br>i. Installing renewable energy systems (solar panels, wind turbines, geothermal systems) or energy-efficient appliances and insulation techniques, which will create jobs for installers and technicians.<br>ii. Energy auditors who assess energy use and make recommendations for efficiency upgrades.<br>iii. Sustainable landscaping and site preparation to support green construction projects, providing additional employment in gardening, irrigation, and landscape design. | | |
| **No Go Alternative**<br>The **no development / construction alternative** must be considered in keeping with the legal requirements (Section 24 (4) of NEMA). This implies that the site be left *as is* and that no development or alteration be done to the site. If this alternative is pursued, the existing conditions on the site will be retained. | | | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| **Existing conditions and habitat on the site will be retained** | Positive and negative | The no-go alternative entails that the proposed MRO (Maintenance, Repair and Overhaul) facility will not be developed, and the affected site within the approved Lanseria Airport township will remain in its current state—i.e., as previously and presently disturbed and utilised land exhibiting limited ecological functionality.<br><br>While this alternative avoids the short-term environmental disturbances typically associated with construction activities (e.g., dust, noise, vegetation clearance and erosion), it would also:<br>• Foreclose significant socio-economic benefits, including the creation of skilled jobs, local procurement opportunities, and alignment with the Lanseria Smart City and aerotropolis development strategy.<br>• Undermine the strategic and operational growth of the Lanseria International Airport precinct by limiting aviation maintenance capacity, reducing long-term competitiveness, and deferring catalytic infrastructure investments.<br>• Fail to optimize the use of transformed land already zoned and serviced for aviation-oriented development, thereby not aligning with the principles of spatial efficiency, resilience, and sustainability. | | |

| ***Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the Lanseria MRO township, partial re-alignment of the Charlie Runway and formalization of the Lanseria Charlie runway apron*** | | | | |
|---|---|---|---|---|
| **POTENTIAL IMPACTS:** | **Significance rating of impacts (positive or negative):** | **PROPOSED MITIGATION:** | **Significance rating of impacts after mitigation:** | **Risk of the impact** and **mitigation not being implemented** |
| | | From an environmental perspective, the no-go alternative would preserve the status quo of the site, which is already degraded and located adjacent to artificial wetland systems with low natural ecological sensitivity. However, it must be noted that mitigation measures have been identified for all construction and operational-phase impacts, and the proposed development can be undertaken without significant residual impact, provided these are effectively implemented.<br><br>In conclusion, the no-go alternative does not present a more sustainable or desirable outcome when considering the balance of environmental protection, social equity, and economic development objectives under NEMA. Its selection may result in the loss of a strategic opportunity to contribute meaningfully to national and regional development goals within an already transformed and infrastructure-ready area. | | |

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

1. Terrestrial Biodiversity Site Assessment
2. Wetland Site Assessment
3. Water, Sewer, roads and Stormwater; Engineering Reports
4. Geotechnical Investigations
5. Environmental Management Programme

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

Identifying potential gaps in knowledge and assumptions made in the EIA report and appendices, is a key part of transparent environmental reporting. These gaps help frame the limitations of the Environmental Impact Assessment (EIA) or EMPr, and signal areas that may require further monitoring, specialist input, or adaptive management.

This report has been compiled on the strength of the information available to Seedcracker Environmental Consulting (SEC) at the time of report preparation. The overall aim of ecologically sound urban development is to minimize the negative impact of development on the environment. The environmental issues listed in this report have been determined through relevant legislation; the professional understanding of the environmental assessment practitioner, Ecological and engineering specialist consultants.

The Basic Assessment report serves to predict and determine the impact of the proposed development on the environment, and the likelihood (probability) of the impacts manifesting themselves. In undertaking this investigation and compiling the Basic Assessment Report, the following has been *assumed*:

- The proposed stormwater treatment infrastructure will be sufficient to prevent hydrocarbons, solvents, or detergents from contaminating nearby and downstream water resources.
- Standard aviation fuel and chemical storage protocols will fully mitigate risks.
- Existing airport operations already dominate local air/noise emissions, so the MRO contribution is negligible.
- Coordination with Lanseria Airport's master planning is essential to ensure cumulative environmental impacts are tracked.
- The information provided by the applicant and professional team is an unbiased and accurate reflection of the characteristics of the site and the development proposal;
- It is assumed that the applicant will comply with all legislation pertaining to the activities of this proposed project and that all permits and licenses that may be required will be identified and applied for *prior to commencement of construction activities (ie, WULA);*
- SEC assumes that the applicant will implement the measures contained in the EMPr, and will adhere to any monitoring procedures. The appointed ECO must adopt a

process of continual improvement when managing and mitigating negative environmental impacts arising from the project. The EMPr will be used as the basis of environmental management and will regularly be improved and refined where applicable.
- Should the project be authorised, the applicant will effect any recommendations and mitigation measures outlined in the authorization, into the detailed design and construction contract specifications of the project.

**3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE**

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

**Proposal: Alternative 1**

| Potential impacts: | Significance rating of impacts(positive or negative): | Proposed mitigation: | Significance rating of impacts after mitigation: | Risk of the impact and mitigation not being implemented |
|---|---|---|---|---|
| N/A | | | | |

**Alternative 2**

| Potential impacts: | Significance rating of impacts(positive or negative): | Proposed mitigation: | Significance rating of impacts after mitigation: | Risk of the impact and mitigation not being implemented |
|---|---|---|---|---|
| N/A | | | | |

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Not applicable.

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

Not applicable. Decommissioning of the project is not envisaged, therefore, no provision for rehabilitation, closure or post decommissioning management has been made.

**4. CUMULATIVE IMPACTS**

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The development of new phases of the airport township may contribute to cumulative impacts that may still be significant due to scale, and compounding effects of the surrounding new townships that will comprise the start of the smart city node.

Table 1 lists and addresses the potential cumulative impacts of the new Lanseria Airport development activities.

**Table 1: Potential cumulative impacts of the new Lanseria Airport development activities to the surrounding area**

| IMPACT | CUMULATIVE EFFECT | CAUSES | WHY IT MATTERS |
|---|---|---|---|
| **Loss of Biodiversity** | Gradual, permanent loss of remaining ecological value in the Lanseria area (e.g. grassland species) | Clearing of remaining vegetation across multiple townships | Loss of connectivity, pollinators, ecosystem services, and urban ecological balance |
| **Cumulative Wetland and Hydrological Stress** | Increased stormwater volumes, velocity, and pollutant load from impervious surfaces. The potential for the decline in water quality and wetland ecological function can also exist. Roads, runways, warehouses all contribute to impervious surface expansion | Development near wetlands, artificial or natural | Impact on the catchment flow regimes in downstream systems (e.g. Diepsloot River, Crocodile River) |
| **Stormwater and Flooding Risks** | Cumulative runoff increase, especially in degraded catchments. Increased and accelerated runoff volumes | Increased impervious surfaces, large areas of compacted soils contributing to the loss of absorption zones, poor stormwater management | Overloads stormwater networks, causes flash floods, downstream erosion, erosion |
| **Water Quality Decline** | Runoff contaminated from hydrocarbons, leaks and spills affecting artificial and natural wetlands | Multiple developments discharging into shared drainage systems | Affects downstream wetland function and aquatic habitat |
| **Infrastructure and Service Pressure** | Load strain on bulk infrastructure even if services are technically available | Cumulative infill across several townships | Increased incidence of water & electricity interruptions, poor waste collection, sewage overflows |
| **Landscape & Visual Homogenization** | Loss of scenic, cultural, or rural elements in the urban fringe | Uniform medium-density development across the node | Loss of the regions present un-developed scenic value |
| **Traffic Congestion & Road Degradation** | Cumulative increase in localised and regional vehicle trips | Areas around access roads, construction routes, and logistic | Increases commute times, safety risk, noise, air pollution, and maintenance burden |

| IMPACT | CUMULATIVE EFFECT | CAUSES | WHY IT MATTERS |
|---|---|---|---|
| | | nodes. Increased workforce movement and freight-related traffic | |
| **Socio-Economic and Land Use Pressures** | Stratification between high-end smart infrastructure and surrounding underserved areas. Encroachment on peri-urban livelihoods (grazing, harvesting, informal enterprise) presently in the Lanseria area. Change in property values, land speculation, and displacement of vulnerable communities. Increased demand for public transport, housing, and social amenities. | Multiple developments shifts the broader land use dynamic of the Lanseria area. Urban sprawl may bypass or displace peri-urban communities. | Deepens socio-spatial inequality; may cause land use conflict or resistance. |

## 5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment **after** the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

**Proposal / Preferred Alternative / Alternative 1: Industrial 3 Township, Lanseria X 79**

This Basic Assessment Report for the new development proposal within the Lanseria X 1 township, has been undertaken in accordance with the EIA Regulations published in GNR 982 of 4 December 2014 of the NEMA, and amended in 2017. This process includes the required Stakeholder Engagement Process as stipulated in GNR 982, which is presently underway. This study provides an assessment of the possible positive and negative impacts that may arise from the identified activities associated with the construction and operation of the different alternatives for development. The information contained in this report and the documentation attached hereto, is supportive for the approving authority to decide in respect of the activities applied for. Where potential biophysical or social impacts have been identified, mitigation and management measures have been proposed to control and monitor the magnitude of impacts associated with the various aspects of the activity.

Lanseria International Airport PTY LTD propose to develop a new Maintenance, Repair, and Overhaul (MRO) facility that aims to provide local or international airlines with a facility for overnight parking and basic maintenance of its aircraft. The MRO facility will provide airlines with large hangars to accommodate aircraft and workshops with specialized equipment for MRO operations. This application includes the partial realignment of the existing Charlie taxiway to provide access to the MRO facility, and the formal development of the Charlie taxiway apron (presently and actively used for the airports firefighting training facilities and exercises, as well as storing old aircraft) to service the fly-in fly-out aircraft at the approved Lanseria X 11 township.

Specialist terrestrial and wetland assessments have confirmed the suitability of the development within the identified land portions of the Lanseria Airport. The site is not affected by a wetland or flood line, but is located south of the artificial wetlands; created within the LIA from the Lanseria Corporate estate stormwater. The Terrestrial biodiversity and wetland assessments are presently being updated in accordance with the Requirements for GN 320 Protocol Compliance. The reports will clearly identify impact footprints, infrastructure layout, and applicable setbacks relative to sensitive features. The updated reports will update direct, indirect and cumulative impacts based on the preferred SDP layout. These updated reports will be included in the FBAR.

Appropriate geotechnical foundation recommendations have been included in the Geotechnical report to support the new airport activities.

Once the biophysical ground truth suitability of the site was determined and approved for development, the planning process of the proposed project was further guided by the following specialist studies: water and sewer Engineering Services Investigations, access, and the greater precinct stormwater management plan. The results of these studies have been used to assist with determining the technical suitability of the property and identifying the engineering solutions to support the application. The proposed development is located

within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The proposed development, situated in the southern precinct, will connect to these existing services. An adequate on-site connection to the domestic water network is available for the development, and the existing water infrastructure has sufficient capacity to meet the anticipated water demand. Furthermore, the wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development.

While the current informal attenuation ponds in the LIA southern precinct have developed wetland-like characteristics, they lack ecological planning and do not provide habitat connectivity. Allowing wetlands within airport operational boundaries conflicts directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property. The formally engineered stormwater management system will meet regulatory standards for stormwater management in terms of water and environmental legislation. The NEMA and water use activity authorisations will be obtained in a separate Basic Assessment application.

Because this present BA application for MRO Phases 1 and 2 is not affected by the artificial wetlands or buffer zones, no NEMA activities associated with infilling or depositing material into a watercourse, clearing of indigenous vegetation within 32 m of a watercourse, or development within 32 m of a wetland in a sensitive area, apply. The NEMA Activities requiring Environmental Authorisation associated with the SWMP will be applied for in a separate application, whilst the deep excavation for the MRO buildings, the re-alignment of the Charlie taxiway, and the Charlie taxiway apron formalization are being constructed.

The impact rating of the identified environmental aspects, using the present specialist report outcomes and recommendations, revealed that most of the negative environmental impacts will be experienced during the *construction* phase. The significance of negative impacts reduces to *low* with the implementation of mitigation measures. It is envisaged that the identified impacts for the preferred alternative can be easily mitigated and satisfactorily managed.

| **CONTRUCTION PHASE** | | |
|---|---|---|
| **IMPACT** | **ALTERNATIVE** | **SIGNIFICANCE AFTER MITIGATION** |
| Geotechnical suitability | 1 | Low |
| Impacts to the artificial Wetlands north of the application study area | 1 | Low |
| Soil erosion | 1 | Low |
| Loss of vegetation | 1 | Low |
| Invasion of alien vegetation | 1 | Low |
| Soil pollution | 1 | Low |
| Surface water quality | 1 | Low |
| Ground water quality | 1 | Low |
| Waste Management | 1 | Low |
| Material Stockpiling | 1 | Low |
| Noise and disturbance | 1 | Low |
| Visual impact | 1 | Low |

| | | |
|---|---|---|
| Employment, safety and security | 1 | Low |
| Impact on Archaeological and/or Paleontological Resources | 1 | Low |
| Air quality | 1 | Low |
| Impacts on Health, Safety and Fire Risk | 1 | Low |
| Traffic Impact | 1 | Low |
| Infrastructure and services | 1 | Low |
| Employment Creation and Local Business Development | 1 | High positive |
| **OPERATIONAL PHASE** | | |
| **IMPACT** | **ALTERNATIVE** | **SIGNIFICANCE AFTER MITIGATION** |
| Impacts to the artificial Wetlands north of the application study area | 1 | Low |
| Impact on Subsurface Water flow Patterns | 1 | Low |
| Potential Pollution of down stream freshwater resources | 1 | Low |
| Utilisation of Water Resources | 1 | Low |
| Electricity Usage | 1 | Low |
| Impact on Service Availability | 1 | Low |
| Traffic Impacts | 1 | Low |
| Solid Waste Pollution | 1 | Low |
| Surface Water Pollution | 1 | Low |
| Visual impact | 1 | Low |
| Employment Creation and Local Business Development | 1 | High positive |

The anticipated negative impacts resulting from the construction and operation of the proposed development can be mitigated to acceptable levels such that there is no environmental degradation on the site, and the downstream water receptors.

The proposed development of the Lanseria Airport and Logistics Hub is expected to yield significant and long-term socio-economic benefits at local, regional, and national scales. The project is aligned with the Gauteng Spatial Development Framework and supports national development priorities including job creation, infrastructure investment, and spatial transformation. As a catalytic infrastructure anchor, the Logistics Hub will enhance regional trade competitiveness and enable efficient goods movement, particularly through integration with the upgraded Lanseria International Airport, planned public transport corridors, and surrounding industrial townships.

The proposed MRO facility will generate substantial positive socio-economic outcomes by creating both direct and indirect employment opportunities during construction and operations. Additionally, the project will stimulate local business development through procurement linkages, skills transfer, and the creation of a supportive ecosystem for aviation-aligned services. These outcomes are aligned with the Lanseria Smart City's strategic goals for inclusive economic growth, local empowerment, and sustainable urban-industrial development.

Key socio-economic benefits include direct and indirect employment generation during construction and operation, including skilled, semi-skilled, and unskilled opportunities in transport, warehousing, logistics, security, maintenance, and retail sectors., local SMME empowerment and enterprise development, particularly for service providers in construction, catering, cleaning, and transport, skills development and training opportunities through partnerships with TVET colleges, local institutions, and on-site programs aligned with logistics, aviation, and smart infrastructure technologies, improved regional accessibility and investment attractiveness, encouraging further private-sector development and supporting the long-term viability of the Lanseria Smart City and increased municipal revenue base through property rates, service charges, and long-term urban densification, enabling improved service delivery in the broader region.

The socio-economic benefits are substantial and can be appropriately balanced with careful environmental management and engineering, to ensure that ecological integrity and social equity are safeguarded.

Development can therefore be authorised on site, provided the mitigation measures as presented in the present and final specialist reports, this BAR and the EMPr are implemented.

**Alternative 2: Alternative building technologies**

The adoption of Alternative Building Technologies (ABTs) in the design and construction of the Lanseria MRO facility, represents a strategic and environmentally responsible approach aligned with the sustainability goals of the Lanseria Smart City and the Gauteng Green Infrastructure Plan. ABTs including modular systems, lightweight steel frames, compressed stabilized earth blocks, precast panels, and insulated panel systems, offer significant benefits in terms of resource efficiency, waste reduction, and emissions control, when compared to conventional construction methods.

Environmental and socio-economic advantages of ABTs include:

i. Reduced carbon footprint due to lower embodied energy in materials, optimized logistics, and faster construction timelines.
ii. Minimized construction waste through prefabrication, material reuse, and more precise on-site assembly.
iii. Lower water usage in construction processes, supporting resilience in a water-stressed region.
iv. Enhanced energy efficiency of built structures through superior thermal insulation, contributing to reduced operational energy demand.
v. Promotion of green job creation and local innovation, particularly through the use of locally sourced materials and the potential to upskill labor in emerging building techniques.
vi. Improved site stewardship, as many ABTs require less intrusive foundation work and reduce disturbance to surrounding soils and vegetation.

The implementation of ABTs supports the project's alignment with the Lanseria Smart City's low-carbon, climate-resilient development objectives, and enhances the long-term sustainability and replicability of logistics and transport-related infrastructure in the region.

**No-go (compulsory)**

Under the No-Go Alternative, the development of the first phase of the Lanseria Airport and Logistics Hub would not proceed. This option would retain the site in its current degraded and underutilized state, within an approved township, earmarked for infrastructure-led transformation under the Lanseria Smart City initiative. While this alternative would avoid short-term environmental impacts associated with construction activities, such as vegetation clearance, increased stormwater runoff, and potential disturbance to downstream water courses, it would also result in the forfeiture of strategic socio-economic and land use benefits envisioned for this region.

Key implications of the No-Go Alternative include:

- Loss of long-term employment and skills development opportunities, particularly for local residents in need of work in the transport, logistics, aviation, and services sectors.
- Stagnation of regional infrastructure investment and urban renewal goals, undermining the implementation of the Gauteng Spatial Development Framework and Lanseria Smart City vision.
- Continued environmental degradation of vacant land due to illegal dumping, uncontrolled access, erosion, and invasive alien vegetation, without the benefit of rehabilitation or integrated stormwater management tied to formal development.
- Reduced potential for unlocking municipal revenue from property rates and service tariffs, limiting the City's ability to improve service delivery and reduce spatial inequality in the region.
- Missed opportunity to leverage the strategic location adjacent to Lanseria International Airport and key transport corridors to boost regional competitiveness and trade logistics capacity.

In summary, while the No-Go Alternative avoids certain short-term environmental impacts, it presents long-term socio-economic, spatial, and environmental opportunity costs, and would likely result in the underutilization of land already zoned and planned for development within a national strategic growth node.

## 6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

The MRO facility will primarily serve the aviation sector, providing essential maintenance services for aircraft, supporting regional and international aviation needs. The site has been historically transformed and disturbed and is zoned for industrial and aviation-related activities. Developing an MRO facility within the LIA township maximizes the effective use of previously disturbed land rather than encroaching on undisturbed or sensitive areas, which aligns with sustainable land-use principles. The site, already historically transformed, does not contain sensitive natural habitats.

Construction-related impacts such as dust, noise, soil erosion, pollution, and increased traffic movement in the area, will be mitigated through by the implementation and enforcement of the Environmental Management Program (EMPr), which will include appropriate mitigation measures. This will minimize disturbance to both the environment and surrounding communities.

An appropriately engineered stormwater management plan (SWMP) has been developed for the Lanseria Southern precinct. The SWMP will be implemented to prevent any increased runoff or flooding. The design of the MRO facility will incorporate sustainable drainage solutions (SuDS), including permeable surfaces where practical, and retention ponds, which will help in managing stormwater, improving water quality, and reducing the risk of erosion. The LIA southern precinct SWMP will require separate authorization due to the anticipated impacts on the artificial wetlands north of the MRO phase 1 and 2 site. Enviro legal and Water Use authorization processes will be followed for development within the artificial wetlands. It is the applicant's intention to apply for these authorizations, whilst earth works for the MRO facility, and the construction of the associated activities proceeds on site.

The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The proposed development will connect to these existing services. The LIA wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development.

During both the construction and operational phases, waste segregation and recycling practices will be implemented to minimize waste to landfill. Specific protocols for handling hazardous materials associated with aircraft maintenance (e.g., oils, solvents, and lubricants) will be integrated into the operational design, ensuring that no contamination of surrounding land or water systems occurs.

With proper planning, monitoring, and implementation of mitigation measures, the MRO facility is designed to ensure that no long-term negative environmental impacts occur. The integration of green technologies in the facility's design (e.g., energy-efficient systems, renewable energy use) and operations will ensure minimal environmental degradation.

The construction related impacts identified and addressed in this report can be adequately managed, if the mitigation measures presented in this Basic Assessment report, the specialist reports, and the EMPr, are properly implemented, monitored, and enforced on site. The success of these measures also depends on the commitment to the best environmental practices by the applicant and appointed contractor.

Best Practices included in this basic environmental assessment process are:

- Conducting regular environmental audits and site inspections.
- Involving environmental specialists and consultants in project planning.
- Engaging with local communities and stakeholders in decision-making.

Challenges that may reduce the effectiveness of the mitigation measures include:

- Poor implementation or non-compliance with environmental conditions.
- Lack of monitoring and enforcement by authorities.
- Insufficient budget or resources for proper mitigation measures.
- Unexpected environmental conditions (e.g., extreme weather events, unforeseen site contamination).

The MRO facility will promote social cohesion by offering direct employment and opportunities for local businesses to provide services during both construction and operation phases. This will contribute to

broader community development and social stability within the Lanseria area. The facility will bolster Lanseria's position as an important aviation and logistics hub, fostering regional competitiveness and attracting further investment. By serving the growing needs of the aviation sector, the MRO facility will contribute to increased trade, regional connectivity, and economic diversification.

The proposed MRO Facility within the Lanseria Airport Township is a well-planned development that offers a range of positive economic and infrastructural benefits, while ensuring that environmental impacts are managed and mitigated to prevent any long-term degradation. The project has been designed to maximize land use efficiency on a previously transformed site, integrating sustainable technologies and best practices for waste, water, and energy management. Through the application of a comprehensive Environmental Management Program (EMPr), construction and operational impacts can be fully mitigated, ensuring that the facility does not result in any significant, long-term negative environmental outcomes.

The proposed development of the Lanseria MRO facility as part of the Lanseria Airport and Logistics Hub, is expected to yield significant and long-term socio-economic benefits at local, regional, and national scales. The project is aligned with the Gauteng Spatial Development Framework and supports national development priorities including job creation, infrastructure investment, and spatial transformation. As a catalytic infrastructure anchor, the Logistics Hub will enhance regional trade competitiveness and enable efficient goods movement, particularly through integration with the upgraded Lanseria International Airport, planned public transport corridors, and surrounding industrial townships.

The socio-economic benefits are substantial and can be appropriately balanced with careful environmental management to ensure that ecological integrity and social equity are safeguarded.

With the implementation of the mitigation measures provided in this report and the EMPr, Seedcracker Environmental Consulting (SEC) is confident that the sum of the construction impacts to the environment will be of a Low negative significance in the short-term. The impacts will be limited to the *study area* which has a low environmental sensitive status, and the adjacent land portions which already have, or are about to receive, environmental approvals.

For alternatives:

Alternative construction methods generally have lower environmental impacts compared to traditional methods. However, the actual impact depends on material sourcing, energy use, and waste management. Sustainable practices, such as using renewable materials (engineered laminated wood, bamboo, Straw Bales, Adobe Bricks, Recycled Plastic Bricks, reclaimed Wood and Recycled Metal, green roofs (Living Roofs, covered with vegetation to improve insulation and biodiversity), energy-efficient designs (Optimal Site Orientation, Green Roofs, Energy-Efficient Lighting, Natural Ventilation, Solar Panels, Battery Storage Systems, Permeable Pavements) and closed-loop recycling, can mitigate negative effects.

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

Lanseria International Airport PTY LTD will build the presently proposed MRO phase 1 and 2 facilities as the first phase of the Lanseria Southern Precinct. The Lanseria Southern Precinct forms part of the Lanseria Airport and Logistics Hub, which is part of a broader vision to transform the airport into a significant aviation and business centre. As the aviation market demands more MRO and landside cargo facilities, and capital investment can be secured, separate applications for future infrastructure at the LIA will be submitted to the authorities.

The preferred alternative is the optimal use of vacant land within the LIA. The site can be adequately serviced to ensure the long-term sustainability of the township. Ecological specialists have assessed the site in terms of aquatic and botanical sensitivity and concluded that the site is not ecologically sensitive and is not affected by a wetland. A low to very low negative impact is therefore associated with the activity. A detailed stormwater management plan has been engineered to manage stormwater runoff from the site, and the greater southern precinct. The areas of the SWMP affected by the artificial wetlands, will obtain Environmental and water use authorisations via a separate BA application.

Sustainable renewable energy measures will be incorporated into the development, to reduce the carbon footprint of the development.

The land on which the MRO facility will be developed, has been utilised, disturbed and transformed many times by the airport. The development of the site provides an opportunity to address environmental degradation, through rehabilitation efforts that can improve land quality, restore ecosystems, and manage stormwater effectively.

Sufficient mitigation measures have been provided to ensure that impacts emanating from the new development are minimal. It is the reasoned opinion of the EAP that these measures can easily be achieved by the applicant. The proposed activities will not conflict with the general objectives of integrated environmental management laid down in the NEMA Act.

**7. SPATIAL DEVELOPMENT TOOLS**

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

The following spatial planning tools were consulted:

- National Screening tool
- GDARD C-Plan V4
- Gauteng Provincial Environmental Management Framework

Spatial data was used to determine the agricultural potential, presence of rivers, wetlands and Ecological status of the study site. Together with the Gauteng Conservation Plan (V4) data, the presence of a wetland was identified and further investigated.

**Gauteng Environmental Management Zones, GPEMF 2015**
According to the Gauteng Environmental Management Framework (EMF) (2021), the study area falls within EMF Zone 2 and EMF Zone 5.

SACNASP registered, specialist terrestrial and wetland studies, dispute the GEMF zoning 2 of the site**.** The development proposal is supported by the municipal planning policies as discussed in Section 2 of this report.

**8. RECOMMENDATION OF THE PRACTITIONER**

| | |
|---|---|
| Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA). | YES ■ |

If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Based on the outcome of the impact study, it is recommended that the MRO facility and associated activities are built, subject to the implementation of all mitigation measures as set out in this Basic Assessment Report. All mitigation measures, which have been outlined in this report as well as in the EMPr and biophysical specialist reports (presently being updated), must be fully adhered to. The Environmental Management Programme (EMPr) will be binding on all managers and contractors operating/utilizing the site. All requirements from the COJ Municipality must be adhered to. All requirements of the Water Use License obtained for the township must be adhered to.

It is the opinion of the EAP that no fatal flaws are associated with the proposed development and that all impacts can be adequately mitigated to reduce the risk or significance of the impacts to an acceptable level. Due to the type of project proposed, the negative aspects will be low, following the correct implementation of mitigation measures, and do not warrant any significant restrictions regarding the development proposal. It is the opinion of the EAP that this Basic Assessment Report contains sufficient information to allow the approving authorities to make an informed decision. It is therefore recommended that the application for Environmental Authorisation should be approved on condition that the recommendations stated herein are effectively implemented.

**9. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT** (as per notice 792 of 2012, or the updated version of this guideline)

The Lanseria MRO facility as part of the Lanseria Airport and Logistics Hub within the Lanseria Smart City, is a strategically significant development project, aligned with both local and national economic

and spatial planning objectives. The needs and desirability of this development are multifaceted, spanning economic, environmental, and social aspects, which are crucial for the long-term success and sustainability of the region.

Economic Needs and Desirability includes job creation and economic growth. The development of the hub will provide thousands of direct and indirect jobs. This is crucial in addressing the high unemployment rates in the region, particularly for skilled, semi-skilled, and unskilled labor in sectors such as construction, logistics, aviation, retail, and services. The logistics sector is one of the fastest-growing industries globally, and the Lanseria Airport and Logistics Hub provides a key entry point for the region to tap into global trade networks, increase export capacity, and foster a competitive advantage in freight, warehousing, and distribution.

The integration of the logistics hub with Lanseria International Airport allows for efficient multimodal transport links between air and road networks. This is vital to enhancing regional and national connectivity, as well as attracting further investment into the Smart City. The synergy between the airport and logistics hub fosters a modernized infrastructure backbone that will support not only cargo handling but also smart city initiatives (e.g., digital logistics management, green technology integration, and sustainability). This would be an investment into future-proofing the region's logistics and trade capabilities.

The development will contribute significantly to municipal revenues through property taxes, service fees, and local business growth. This can also help diversify the local economy. The increased tax base will allow for enhanced local infrastructure and will serve as a regional trade and business hub, attracting global and local businesses, fostering economic integration within Southern Africa.

The support of SMMEs and opportunities for local entrepreneurs in the logistics, construction, retail, and service sectors can help address historical socio-economic inequalities and improve community resilience. Increased development around Lanseria International Airport and surrounding areas will lead to enhanced road networks, public transport access, and commuter services for the wider region. The Lanseria Airport and Logistics Hub will help strengthen South Africa's role as a logistics and transportation hub within the Southern African Development Community (SADC) and broader African continent. Improved freight handling and multimodal transport links are essential to meeting the demands of modern trade and reducing logistical bottlenecks creating a more efficient and sustainable supply chain across the region.

The development of the Lanseria Airport and Logistics Hub is an opportunity to integrate green technologies (e.g., renewable energy, waste management systems, water efficiency) and sustainable construction practices, minimizing its environmental impact during both construction and operation phases. By adopting Alternative Building Technologies (ABTs), renewable energy systems, and green infrastructure (such as water recycling and stormwater management), the development can set a new benchmark for sustainable urban development in the country. This is essential to ensuring long-term ecological health in the area, especially with respect to the adjacent wetland systems and recovering indigenous vegetation.

**10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED** *(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)*

The authorisation should cater for the commencement of construction within 10 years from the date of authorization and concluded within 10-15 years. Construction activities on site must be accompanied by an Environmental Control Officer.

Compliance Monitoring
The Applicant and Contractor(s) will be responsible for monitoring all construction activities on a day-to-day basis to ensure compliance with the EA (if granted) and EMPr throughout the all phase of the proposed activities. ECO Monitoring (i.e., site inspections) should be undertaken once every two weeks, until such time that all construction activities are completed on site. When deemed necessary and at the ECO's discretion, the frequency of the monitoring can be revised, in agreement with the competent authority if necessary.

Environmental Audits
In terms of Regulations 34 of the EIA Regulations, 2014 (as amended) the holder of the EA (if granted) must for the period during which the EA (if granted) and EMPr remain valid, conduct Environmental Audits. The Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended). It is recommended that an Environmental Audit be undertaken within one months after the completion of all construction on site.

**11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)** (must include post construction monitoring requirements and when these will be concluded.)
If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

| | |
|---|---|
| EMPr attached | YES |

## SECTION F: APPENDICES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive). It is required that if more than one item is enclosed that a table of contents is included in the appendix.

**Appendix A1:** Locality plan(s)
**Appendix A2:** Preferred Township Layout Plan
**Appendix A3:** GDARD C-Plan of the site
**Appendix A4:** Artificial wetlands affecting the greater Lanseria Southern Precinct
**Appendix B:** Photographs
**Appendix C:** Facility illustration(s)
**Appendix D:** Route position information
**Appendix E:** Public participation information

**Appendix F:** Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

**Appendix G**: **Specialist reports**

- 1. Terrestrial Biodiversity Assessment
- 2. Wetland assessment
- 3. Engineering report - Roads and Stormwater
- 4. Engineering Report - water and Sewer
- 5. Stormwater management Plan
- 7. Geotechnical assessment

- **Appendix H: EMPr: *Environmental Management Programme***

**Appendix I:** Other information

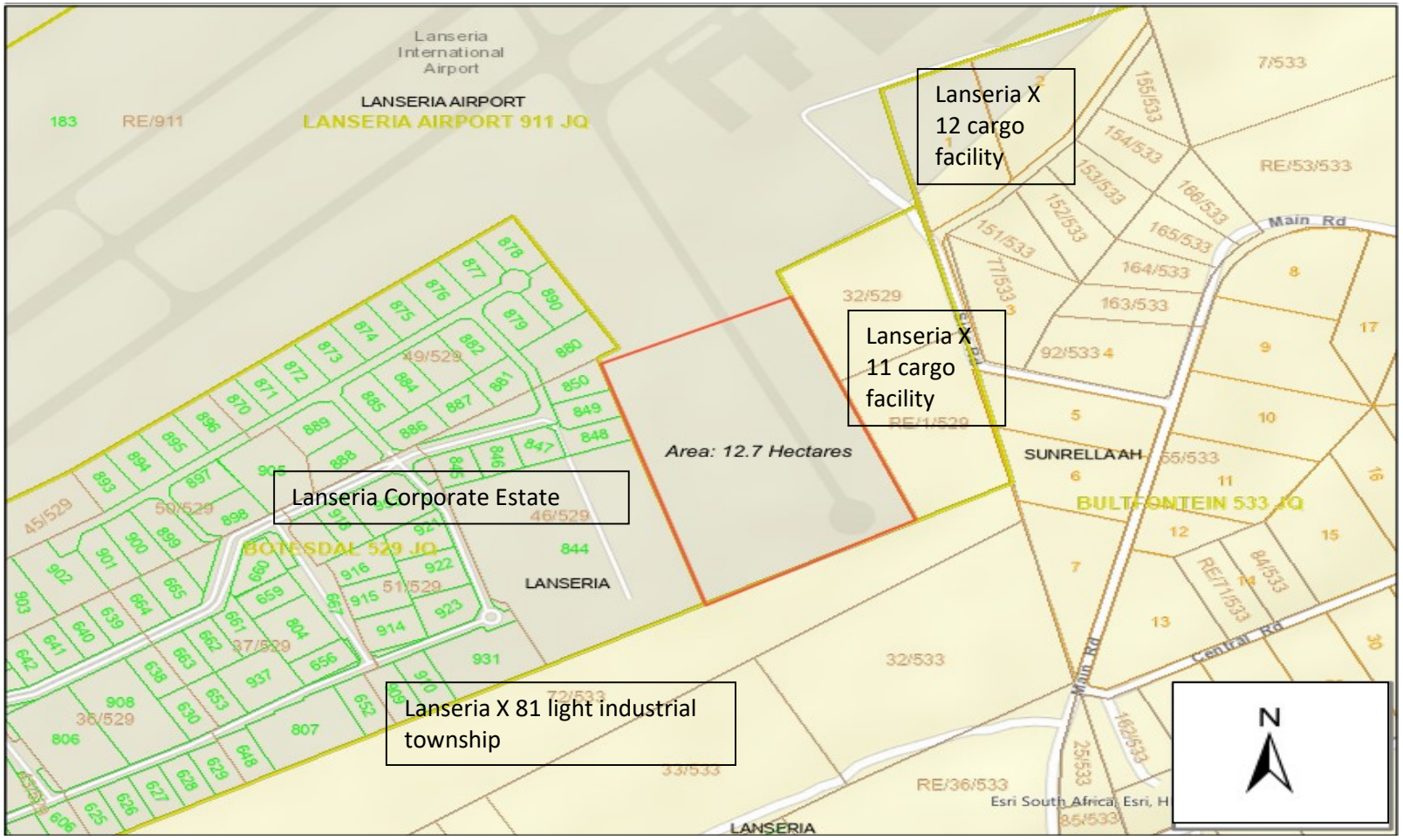
- List of Departments informed of application
- CV of the EAP
- Screening Report

**CHECKLIST**

To ensure that all information that the Department needs to be able to process this application, please check that:

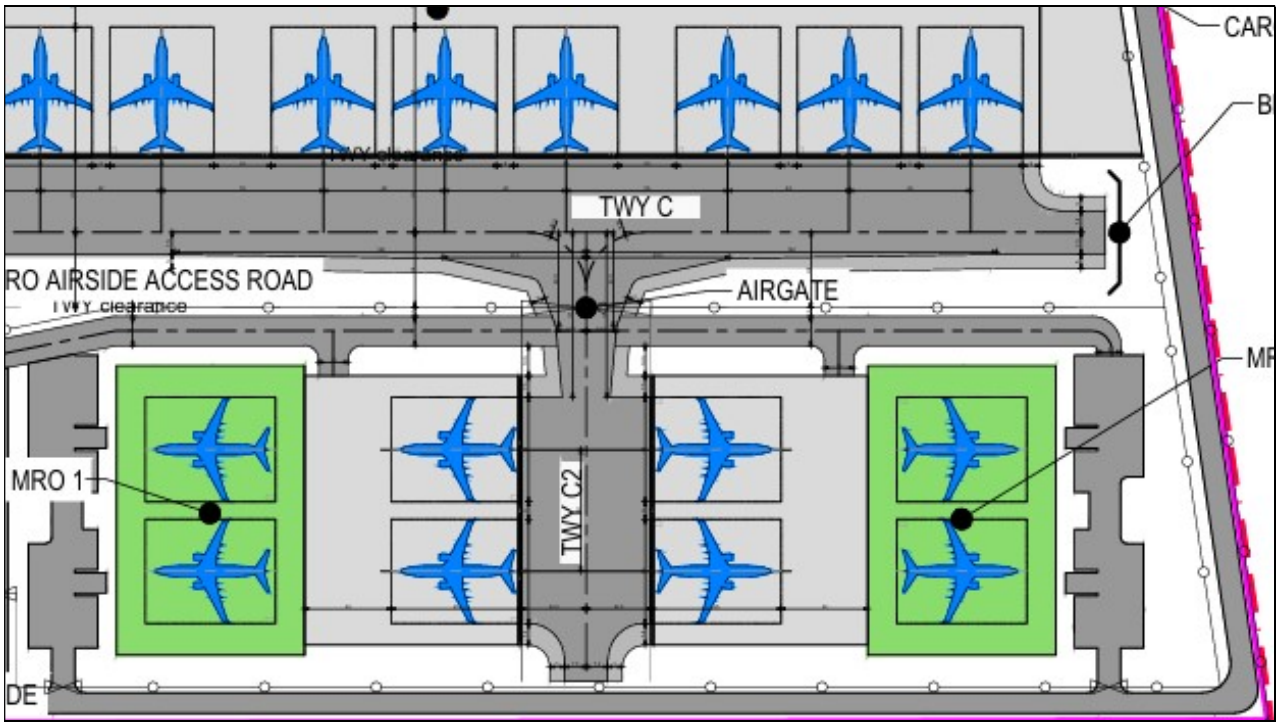
- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.

# APPENDIX A1: LOCALITY MAP

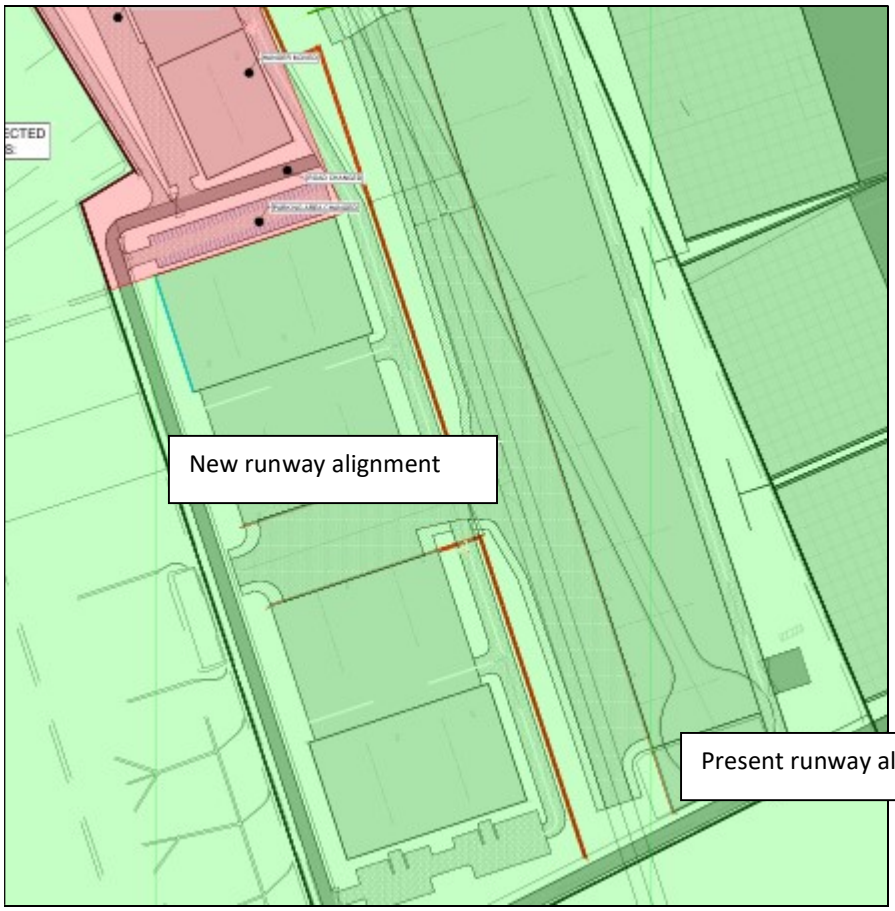



Seedcracker
environmental consulting cc

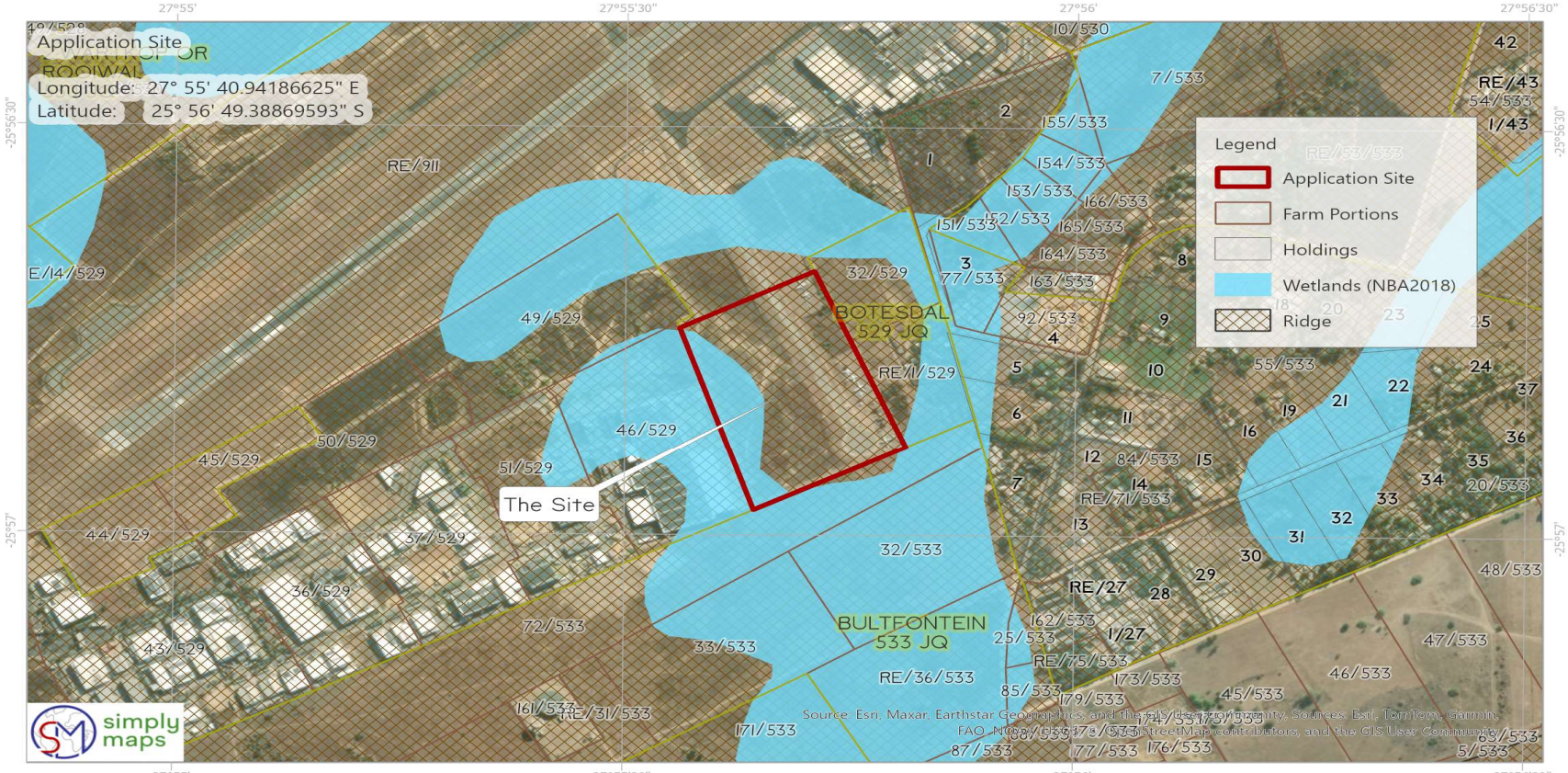
# APPENDIX A2: PREFERRED SITE PLAN OF PROPOSED DEVELOPMENT

**Partial re-alignment of the Charlie runway**



# APPENDIX A3: SENSITIVITY MAPS OF THE SITE




N W E S

1:10 000 (A4)

500 Meters

## SENSITIVITY MAP

A portion of Erf 183, Lanseria Airport

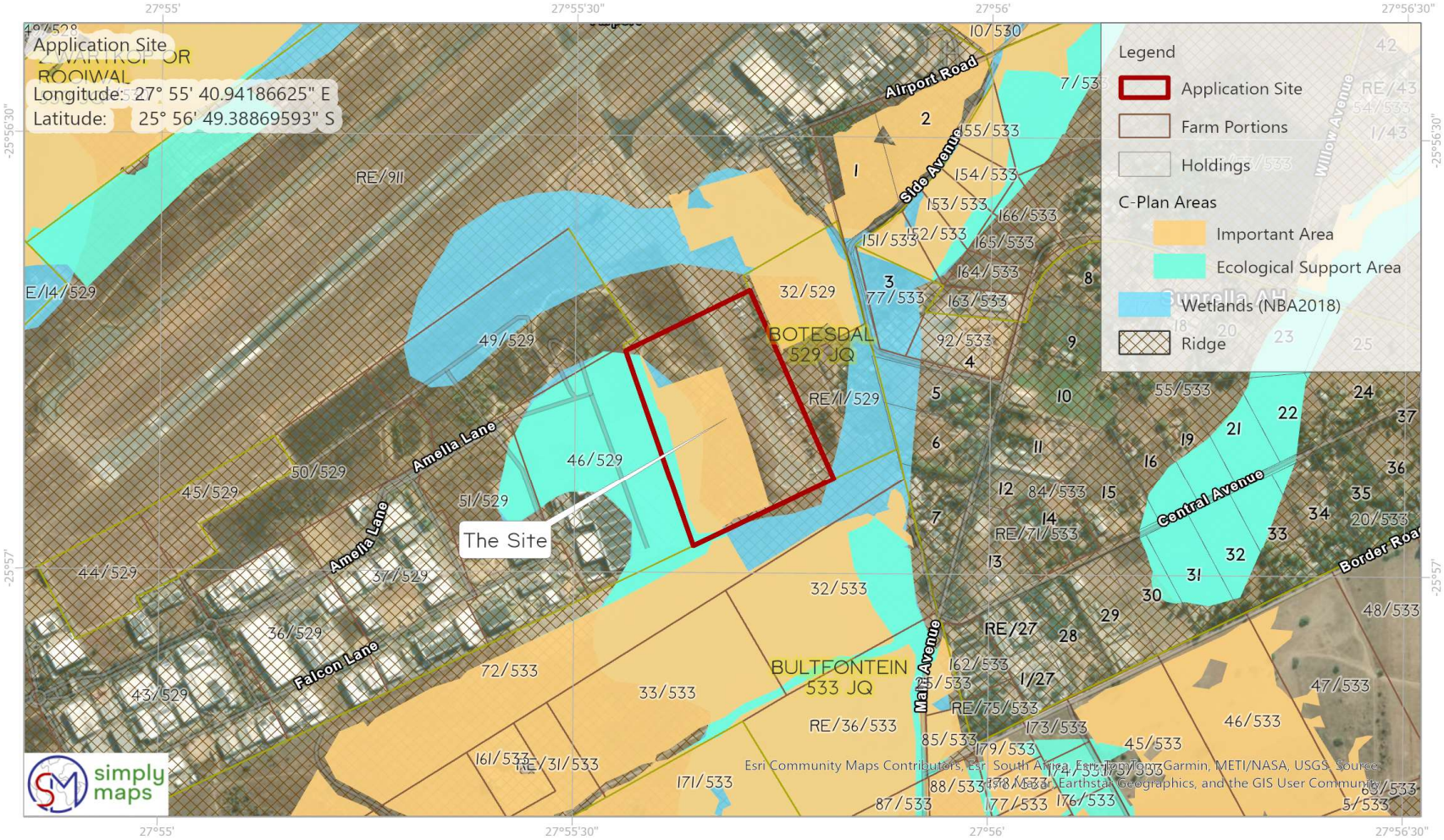
April 2025

Date created: Thursday, 10 April 2025
Author: philipviljoen@simplymaps.co.za
Geographic Coordinate System: Hartebeesthoek94

The data on the map is sourced from various data custodians. *Simply maps* is not liable for positioning inaccuracies, subsequent updates, errors, or omissions of data.

WESTLEIGH ENVIRONMENTAL SERVICES

Seedcracker environmental consulting cc

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## SENSITIVITY MAP

A portion of Erf 183, Lanseria Airport

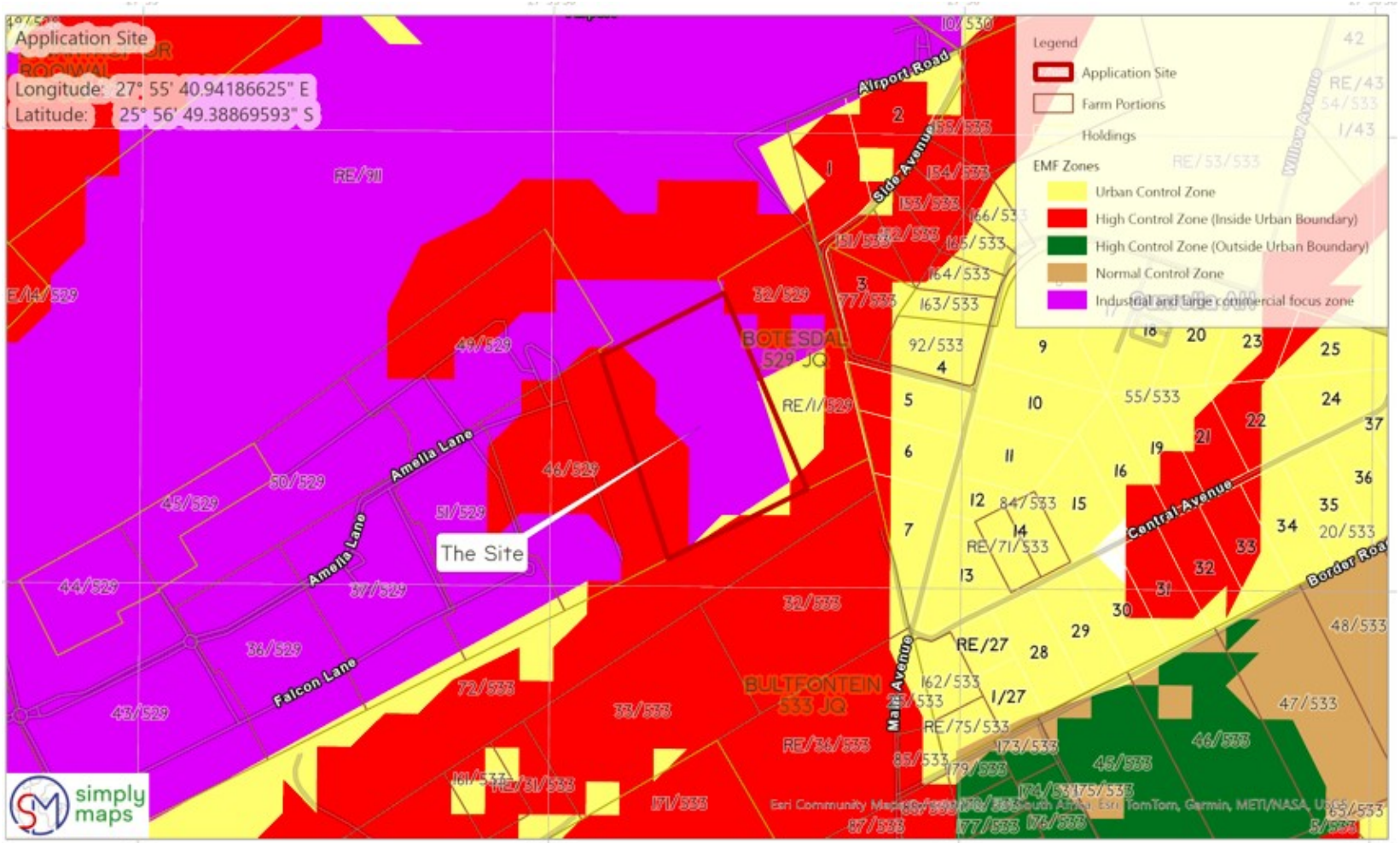
April 2025

Date created: Thursday, 10 April 2025
Author: philipviljoen@simplymaps.co.za
Geographic Coordinate System: Hartebeesthoek94

The data on the map is sourced from various data custodians. *Simply maps* is not liable for positioning inaccuracies, subsequent updates, errors, or omissions of data.

WESTLEIGH ENVIRONMENTAL SERVICES

Seedcracker environmental consulting cc

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**GAUTENG**

**ENVIRONMENTAL MANAGEMENT FRAMEWORK 2021**

A portion of Erf 183, Lanseria Airport

April 2025

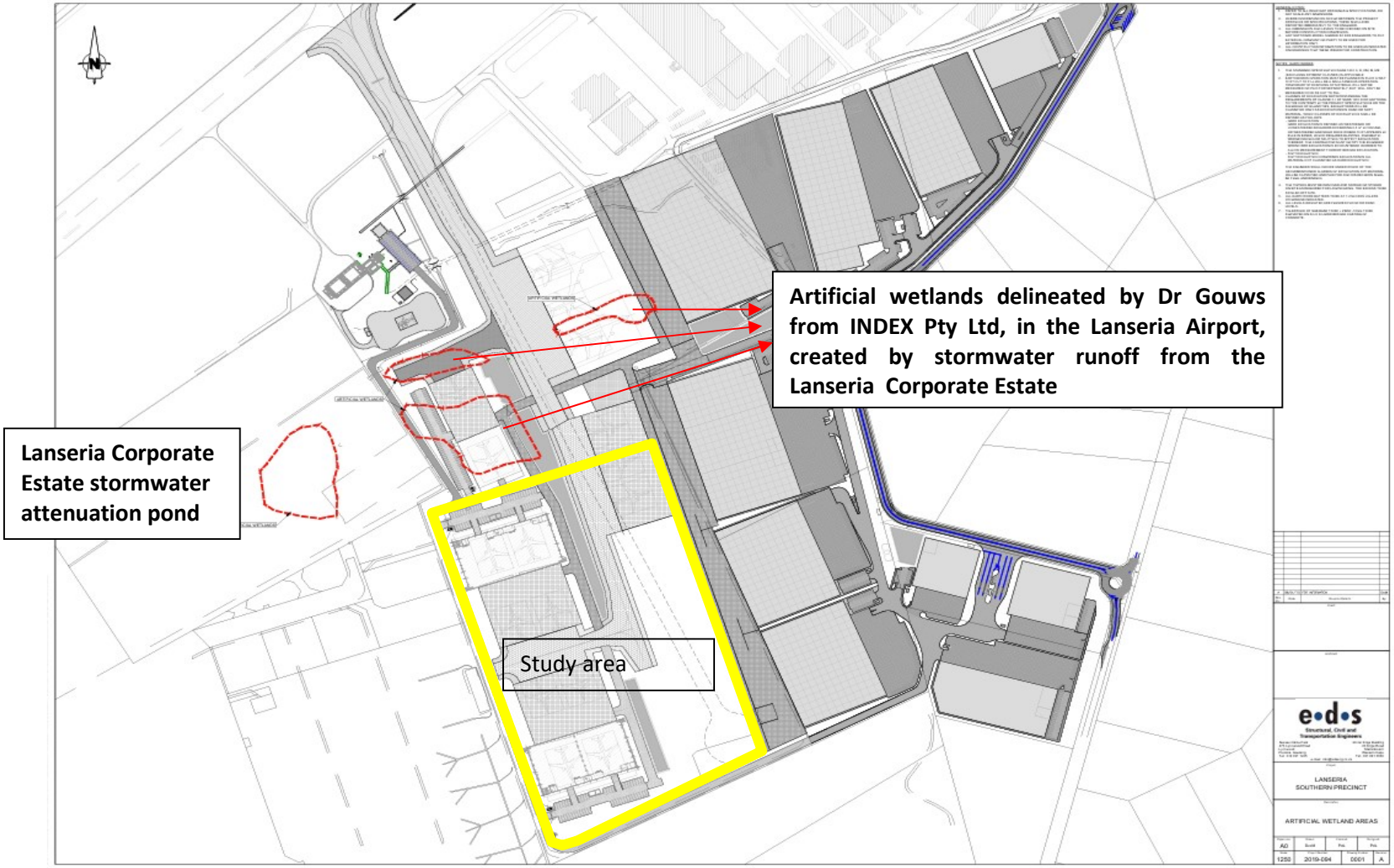
Date created: Thursday, 10 April 2025
Author: philipvdljoen@simplymaps.co.za
Geographic Coordinate System: Hartebeesthoek94

The data on the map is sourced from various data custodians. Simply maps is not liable for positioning inaccuracies, subsequent updates, errors, or omissions of data.

WESTLEIGH ENVIRONMENTAL SERVICES

Seedcracker environmental consulting cc

# APPENDIX A4: ARTIFICIAL WETLANDS AFFECTING THE GREATER LANSERIA SOUTHERN PRECINCT



# APPENDIX B: SITE PHOTOGRAPHS

## MRO PHASE 1 AND 2 AND ASSOCIATED ACTIVITIES

N

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|  | **NE** |
|  | **E** |

**E**

**SE**

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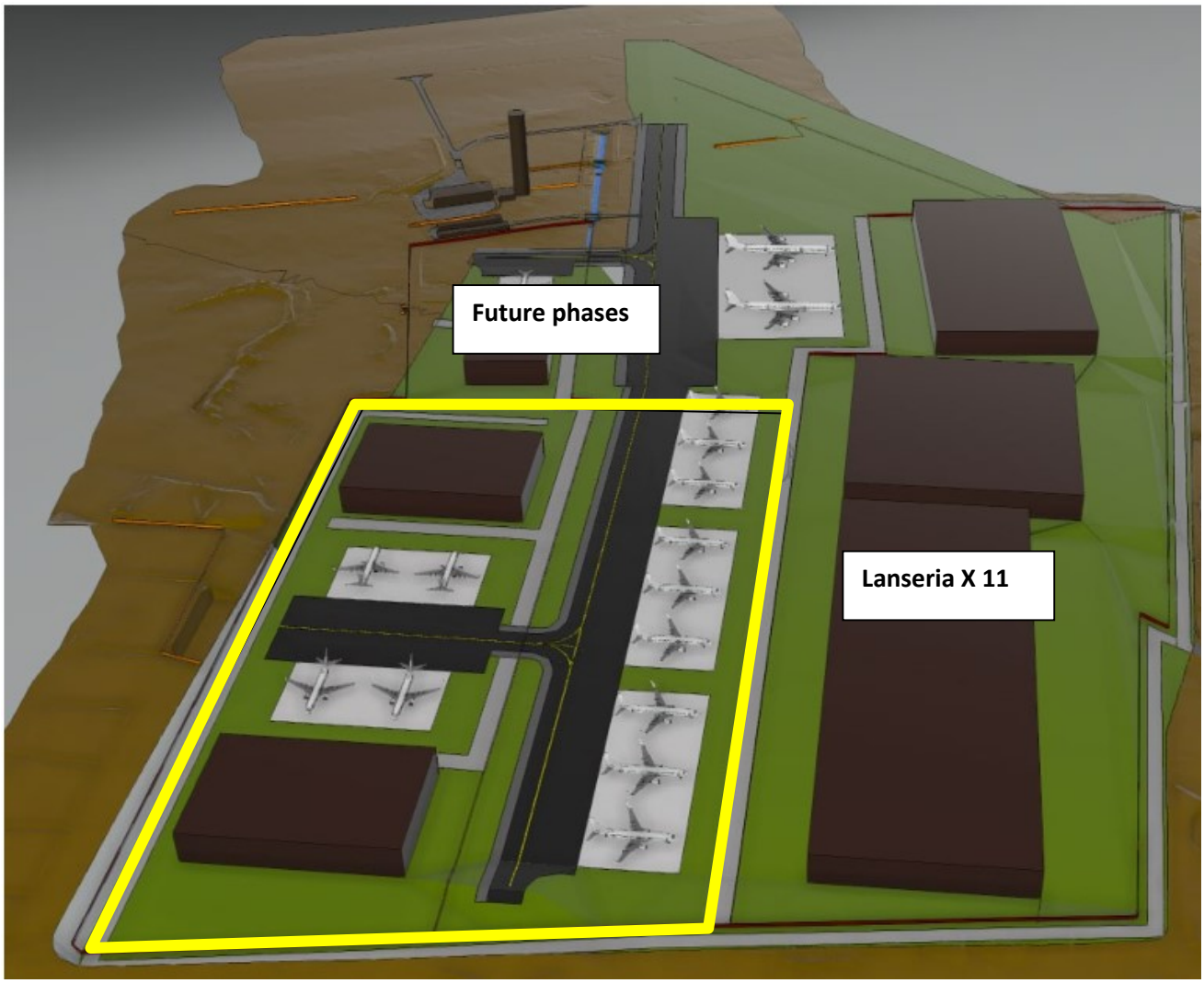
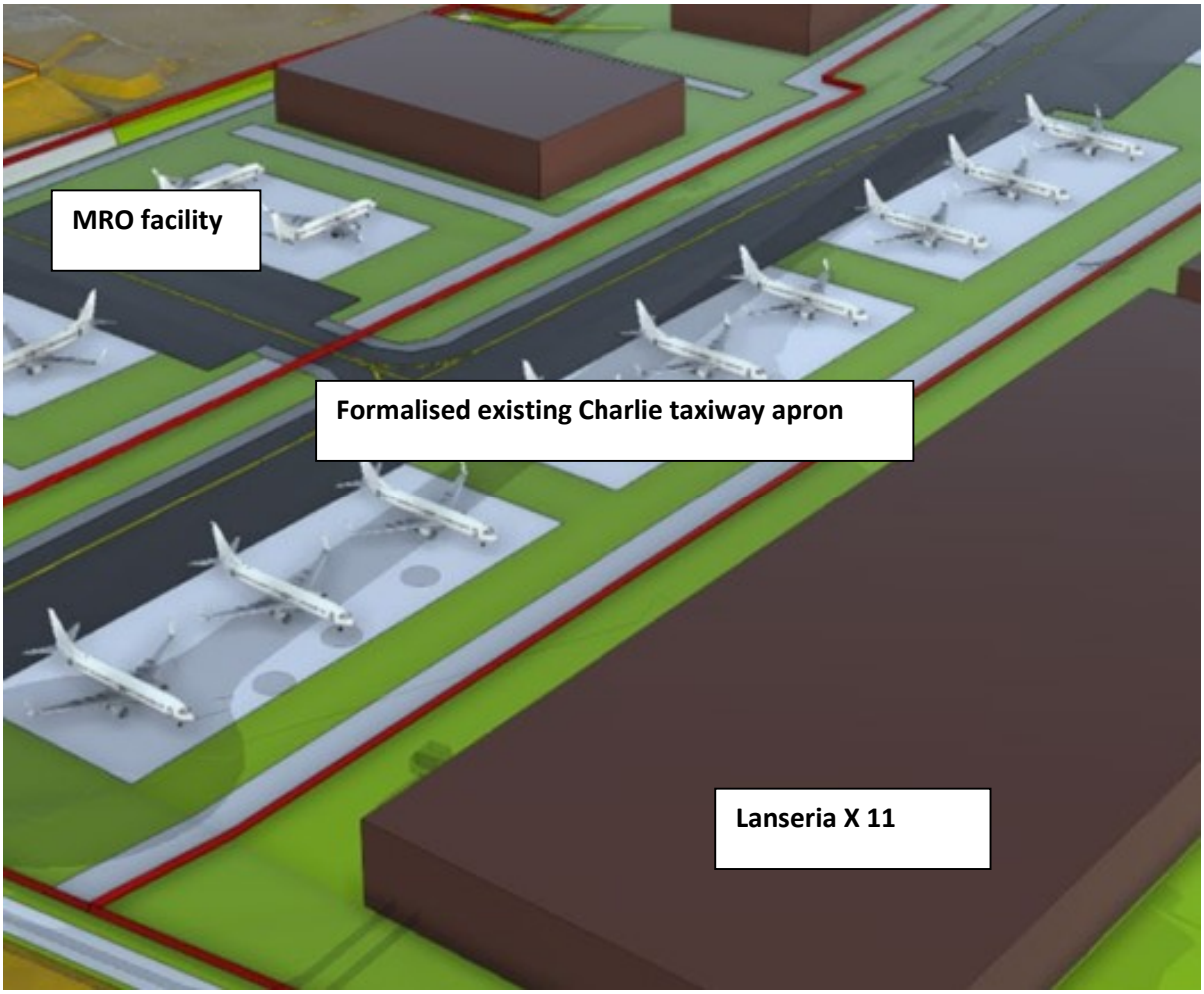
|---|---|
|  | **SE** |
|  | **SW** |

S

W

# APPENDIX C: FACILITY ILLUSTRATIONS




MRO facility
Formalised existing Charlie taxiway apron
Lanseria X 11


Formalised existing Charlie taxiway apron
MRO facility

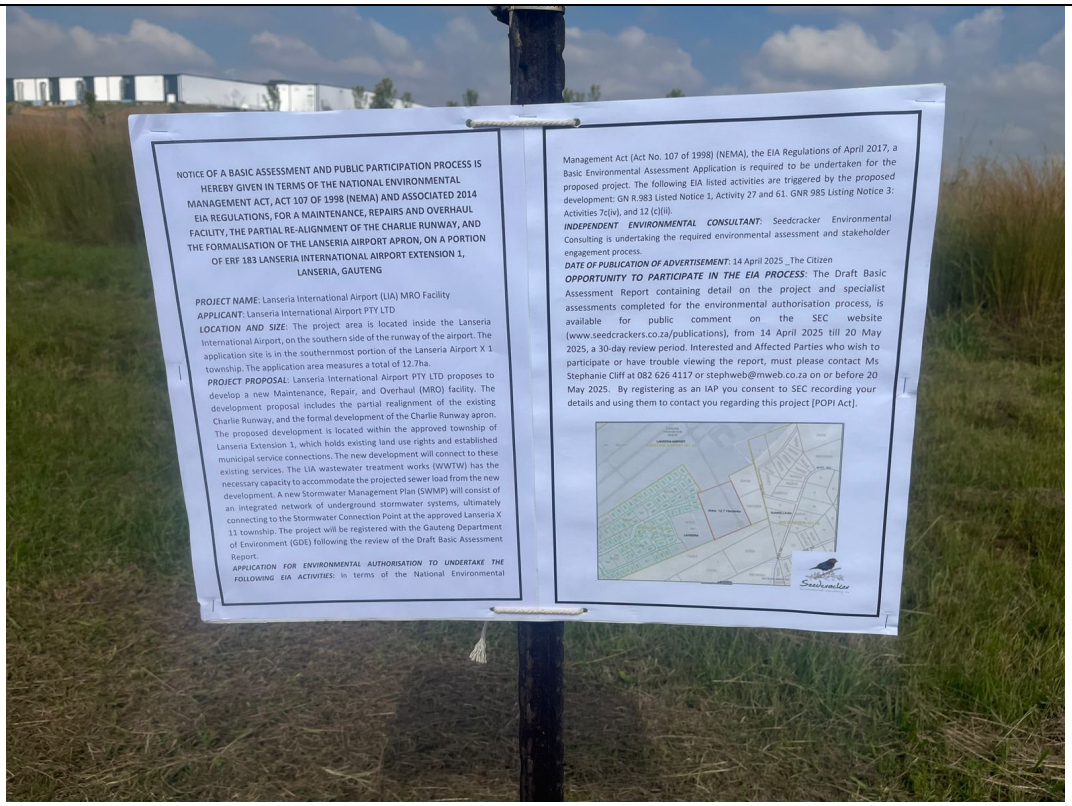
# APPENDIX D: ROUTE POSITION INFORMATION

***NOT APPLICABLE***

# APPENDIX E: PUBLIC PARTICIPATION INFORMATION

**E1: Proof of Site Notices**
**E2: Written Notices Issued**
**E3: Proof of Newspaper Advert**
**E4: Communication with I&APs**
**E5: Minutes of Meetings – N/A**
**E6: Comments and Issues Report – None required**
**E7: Comments from I&APs on BAR**
**E8: Comments from I&APs on amended BAR**
**E9: Copy of Register of I&APs**

# Appendix E1 - Proof of site notices, 3 boards

NOTICE OF A BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS IS HEREBY GIVEN IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT 107 OF 1998 (NEMA) AND ASSOCIATED 2014 EIA REGULATIONS, FOR A MAINTENANCE, REPAIRS AND OVERHAUL FACILITY, THE PARTIAL RE-ALIGNMENT OF THE CHARLIE RUNWAY, AND THE FORMALISATION OF THE LANSERIA AIRPORT APRON, ON A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG

**PROJECT NAME**: Lanseria International Airport (LIA) MRO Facility

**APPLICANT**: Lanseria International Airport PTY LTD

**LOCATION AND SIZE**: The project area is located inside the Lanseria International Airport, on the southern side of the runway of the airport. The application site is in the southernmost portion of the Lanseria Airport X 1 township. The application area measures a total of 12.7ha.

***PROJECT PROPOSAL***: Lanseria International Airport PTY LTD proposes to develop a new Maintenance, Repair, and Overhaul (MRO) facility. The development proposal includes the partial realignment of the existing Charlie Runway, and the formal development of the Charlie Runway apron. The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The new development will connect to these existing services. The LIA wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development. A new Stormwater Management Plan (SWMP) will consist of an integrated network of underground stormwater systems, ultimately connecting to the Stormwater Connection Point at the approved Lanseria X 11 township. The project will be registered with the Gauteng Department of Environment (GDE) following the review of the Draft Basic Assessment Report.

***APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO UNDERTAKE THE FOLLOWING EIA ACTIVITIES***: In terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), the EIA Regulations of April 2017, a Basic Environmental Assessment Application is required to be undertaken for the proposed project. The following EIA listed activities are triggered by the proposed development: GN R.983 Listed Notice 1, Activity 27 and 61. GNR 985 Listing Notice 3: Activities 7c(iv), and 12 (c)(ii).

***INDEPENDENT ENVIRONMENTAL CONSULTANT***: Seedcracker Environmental Consulting is undertaking the required environmental assessment and stakeholder engagement process.

***DATE OF PUBLICATION OF ADVERTISEMENT***: 14 April 2025 _The Citizen

***OPPORTUNITY TO PARTICIPATE IN THE EIA PROCESS***: The Draft Basic Assessment Report containing detail on the project and specialist assessments completed for the environmental authorisation process, is available for public comment on the SEC website (www.seedcrackers.co.za/publications), from 14 April 2025 till 20 May 2025, a 30-day review period. Interested and Affected Parties who wish to participate or have trouble viewing the report, must please contact Ms Stephanie Cliff at 082 626 4117 or stephweb@mweb.co.za on or before 20 May 2025. By registering as an IAP you consent to SEC recording your details and using them to contact you regarding this project [POPI Act].

# Appendix E2 – Written notices issued to IAP'S, BID

# Appendix E3 – Proof of newspaper advertisements

## WILL BE INCLUDED IN THE FBAR

# Appendix E4 –Communications to and from IAPS

## WILL BE INCLUDED IN THE FBAR

# Appendix E5 – Minutes of meetings

## Not applicable

# Appendix E6 - Comments and Responses Report

## WILL BE INCLUDED IN THE FBAR

# Appendix E7 –Comments from I&APs on Basic Assessment (BA) Report

## WILL BE INCLUDED IN THE FBAR

# Appendix E8 –Comments from I&APs on *amendments* to the BA report

**Not Applicable**

# Appendix E9 – Copy of the register of I&APs

# Appendix E10 – Comments from I&APs on the application

## WILL BE INCLUDED IN THE FBAR

# APPENDIX G: SPECIALIST STUDIES

# TERRESTRIAL BIODIVERSITY ASSESSMENT

# WETLAND ASSESSMENT

# WATER, SEWER, ROADS AND STORMWATER; ENGINEERING REPORTS

# GEOTECHNICAL INVESTIGATION

# APPENDIX H: ENVIRONMENTAL MANAGEMENT PROGRAMME

# APPENDIX I:

## DRAFT REPORT SUBMITTED TO THE FOLLOWING AUTHORITIES FOR COMMENT:

## COJ ENVIRONMENT

a world class African city

City of Johannesburg
118 Jorissen Street
Traduna House
Braamfontein
PO Box 1049
Johannesburg
South Africa
Tel +27(0) 11 595 4712
www.joburg.org.za

**UNIT: IMPACT MANAGEMENT & COMPLIANCE MONITORING**

# EAP CV

# DFFE SCREENING REPORT