Manyabe Consultancy (Pty) Ltd

PROPOSED THARISA MINERALS (PTY) LTD BATTERY ENERGY STORAGE SYSTEM (BESS) DEVELOPMENT PROJECT

Civil Aviation Compliance Statement

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EXECUTIVE SUMMARY

Background

Tharisa Minerals (Pty) Ltd (Tharisa) proposes to establish a Battery Energy Storage System (BESS) Development and associated infrastructure within the Tharisa Mine, located near Marikana in the North West Province (hereafter referred to as the "Project").

Manyabe Consultancy (Pty) Ltd (MC) has been appointed as the Environmental Assessment Practitioner (EAP) to undertake the registration process on behalf of Tharisa. WSP Group Africa (Pty) Ltd (WSP) has been appointed by MC to prepare this Civil Aviation Compliance Statement in accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA), and the adopted Norm for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity, which allows for the exclusion from the requirement to obtain an Environmental Authorisation (EA) from the Competent Authority (CA) for listed and specified activities identified in Paragraph 3 of the Norm, in terms of Government Notice (GN) 4557, published in Gazette No. 50387, 27 March 2024.

This statement assesses the potential civil aviation sensitivity of the Project and evaluates any potential impacts on civil aviation installations and airspace.

DFFE Screening Tool Assessment

A Department of Forestry, Fisheries and the Environment (DFFE) National Web-based Environmental Screening Tool Report was generated for the Project site. The DFFE Screening Tool identifies the Project site as having a "High" civil aviation sensitivity, due to:

- Dangerous airspace (Flight Area Dangerous (FAD)); and
- Conservatively identified restricted airspace (Flight Area Restricted (FAR)).

WSP Assessment

A site visit was conducted by WSP on 27 May 2026, supported by a desktop review of spatial datasets and publicly available aeronautical information. The assessment confirms that:

- The site is located within FAD70E (Magaliesberg Flying Training Area East);
- No restricted airspace (FAR) occurs within or near the site;
- Nearby aerodromes are limited to general aviation facilities;
- Aviation activity in the area is low-frequency and non-intensive; and
- The proposed development comprises low-profile infrastructure.

Conclusion

Based on the nature, scale and location of the proposed development, no direct or indirect impacts on civil aviation operations, airspace integrity, or aviation infrastructure are anticipated.

Way Forward

Comments from the South African Civil Aviation Authority (SACAA) and Air Traffic and Navigation Services (ATNS) will be requested as part of the registration processes by the EAP. No further civil aviation-related investigations are required to inform the registration process.

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LIST OF ACRONYMS

Acronym	Description
AGL	Above Ground Level
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
ATNS	Air Traffic and Navigation Services
BESS	Battery Energy Storage System
CA	Competent Authority
DFFE	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
FABS	ICAO code for Brits Airfield
FAD	Dangerous Airspace
FAOI	ICAO code for Orient Airfield
FAR	Restricted Airspace
FARG	ICAO code for Rustenburg Airfield
FL100	Flight Level 100
GN	Government Notice
GND	Ground Level
ICAO	International Civil Aviation Organisation
MC	Manyabe Consultancy (Pty) Ltd

Acronym	Description
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended
PCS	Power Conversion System
PV	Photovoltaic
RFB	Redox Flow Battery
RSA	Republic of South Africa
SACAA	South African Civil Aviation Authority
WSP	WSP Group Africa (Pty) Ltd

UNITS OF MEASUREMENT

Unit / Symbol	Description
km	Kilometres
m	Metres
m^2	Square metres
m^3	Cubic metres
mAGL	Metres above ground level
°	Degrees
′	Minutes (geographic coordinates)
″	Seconds (geographic coordinates)

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1 INTRODUCTION

1.1 BACKGROUND

Tharisa Minerals (Pty) Ltd (Theresa) proposes to undertake the establishment of a Battery Energy Storage System (BESS) Development and associated infrastructure within the Tharisa Mine, located near Marikana in the North West Province (referred to as the "Project"). The Project is intended to support ongoing mining operations through the integration of renewable energy and energy storage infrastructure, thereby enhancing energy security and supporting decarbonisation initiatives.

Manyabe Consultancy (Pty) Ltd (MC) has been appointed as the Environmental Assessment Practitioner (EAP) to undertake the registration process on behalf of Tharisa. WSP Group Africa (Pty) Ltd (WSP) has been appointed by MC to prepare this Civil Aviation Compliance Statement in accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA), and the adopted Norm for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity, which allows for the exclusion from the requirement to obtain an Environmental Authorisation (EA) from the Competent Authority (CA) for listed and specified activities identified in Paragraph 3 of the Norm, in terms of Government Notice (GN) 4557, published in Government Gazette No. 50387, 27 March 2024.

The registration process is being undertaken in terms of NEMA, and the applicable Norm for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity.

1.2 PURPOSE OF THE REPORT

This Civil Aviation Compliance Statement has been prepared to assess the potential civil aviation sensitivity of the Project and to evaluate any potential impacts on civil aviation infrastructure and operations.

The statement has been compiled in accordance with the requirements of NEMA, the Department of Forestry, Fisheries and the Environment (DFFE) Screening Tool Protocols (GN 320, published in Government Gazette No. 43110, 20 March 2020), specifically the Civil Aviation Installations Assessment Protocol. Additionally, this statement is intended to support the registration process under the Norm for the exclusion of identified activities associated with the development and expansion of battery storage facilities in areas of low or medium environmental sensitivity (GN 4557).

In line with the Civil Aviation Installations Assessment Protocol, this report is required where a site is identified by the DFFE Screening Tool as having a "Very High", "High", "Medium" or "Low" sensitivity to civil aviation installations.

This report therefore provides:

- Photographic documentation of the Project area from a site visit conducted by the specialist.
- The site sensitivity status.
- Comment from the South African Civil Aviation Authority (SACAA), where available.
- Comment from Air Traffic and Navigation Services (ATNS), where available.
- The potential impact on civil aviation.
- A concluding compliance statement regarding civil aviation considerations.

1.3 METHODOLOGY

To assess the environmental sensitivities and to draft the compliance statement for the Project site, the following steps were undertaken:

- The Project location was mapped using the DFFE Screening Tool to identify the assigned site sensitivity ratings.
- A site visit was conducted on 27 May 2026 by WSP to collect information and to verify the current land use.
- Existing spatial datasets were consulted to determine the proximity of civil aviation installations/infrastructure relative to the Project area.
- The SACAA and ATNS will be formally contacted by the Project EAP to solicit comments regarding the potential civil aviation sensitivity and impact of the Project on existing civil aviation installations.
- Compilation of this Civil Aviation Compliance Statement as per the Civil Aviation Installations Assessment Protocols.

1.4 ASSUMPTIONS AND LIMITATIONS

This Civil Aviation Compliance Statement has been prepared based on the following assumptions and limitations:

- The assessment is based on the information available at the time of reporting, including the Project description, layout plans, spatial datasets, the DFFE Screening Tool and publicly available aeronautical information.
- A site visit has been undertaken to verify the current land use and surrounding environment; however, no direct engagement with airfield operators has been undertaken as part of this assessment.
- The proposed development is assumed to be confined to the defined Project footprint located within the existing Tharisa Mine boundary and previously disturbed areas.
- The assessment assumes that the proposed infrastructure comprises low-profile, containerised systems, with a maximum permanent height of approximately 6.6 metres above ground level (mAGL).
- Temporary construction equipment, such as cranes, will not exceed 60 mAGL and the development will not include any structures or activities that could interfere with civil aviation operations, communications, surveillance systems or security protocols.
- Comments from the SACAA and ATNS were not available at the time of reporting and will be incorporated once received, where applicable.
- The analysis does not include a detailed aeronautical obstacle assessment or airspace modelling and is limited to a screening-level assessment in accordance with the applicable DFFE protocol.
- The findings and conclusions of this report are subject to revision should additional information become available, should comments be received from civil aviation authorities, or should the Project scope be amended.

1.5 DETAILS OF THE SPECIALIST

WSP is one of the world's leading engineering professional services consulting firms. It is dedicated to local communities and propelled by international brainpower.

In Africa, WSP is a leading environmental consultancy with a broad range of expertise and over 25 years' experience in the regional market. As part of a global business, it provides the marketplace with a dynamic blend of local knowledge and global expertise.

Table 1-1 provides the relevant contact details of the specialist.

Table 1-1 - Details of the specialist

Name	Qualifications and Registrations	Experience
Phindile Mashau (Registered EAP: 2019/1731)	Phindile Mashau is an experienced environmental management professional with over a decade of expertise in EA applications, assessments and compliance. Her skills include project management, environmental (and social) impact assessments (EIA/ESIA), Phase 1 site assessments/due diligence, stakeholder engagement, permitting, environmental health and safety (EHS) auditing and public participation. Phindile has also drafted civil aviation and defence compliance statements for a range of developments. Phindile has managed projects across South Africa, Namibia, Nigeria, Lesotho, the Kingdom of Saudi Arabia, Zambia, Mozambique and the Ivory Coast, working with both local legislation and international frameworks such as the World Bank Environmental and Social Framework, International Finance Corporation Performance Standards, Equator Principles and KfW Development Bank Guidelines. She has extensive experience in infrastructure development projects and has drafted civil and aviation compliance statements for various developments. Email : phindile.mashau@wsp.com Tel : (011) 254 4826	11 years

1.5.1 STATEMENT OF INDEPENDENCE

Neither WSP nor any of the authors of this Report have any material present or contingent interest in the outcome of this Report, nor do they have any business, financial, personal or other interest that could be reasonably regarded as being capable of affecting their independence. WSP has no beneficial interest in the outcome of the assessment.

2 PROJECT OVERVIEW

2.1 SCOPE OF WORK

The proposed Project entails the development of a BESS facility at the Tharisa Mine to support the integration of renewable energy and optimise energy supply to the Administration and Training Centre facilities.

The BESS Development forms part of a broader energy solution comprising a photovoltaic (PV) solar system and associated infrastructure. The system is designed to store excess solar energy generated during the day and supply energy during periods of peak demand, particularly during morning and evening peak load periods.

The Project includes the installation of a Redox One Redox Flow Battery (RFB) 625 Iron-Chromium flow battery system, selected based on its suitability to the required load profile, as well as associated mechanical, electrical and containment infrastructure required for its operation.

All construction and operational activities will be confined to a defined footprint within the existing Tharisa Mine boundary and on previously disturbed land (Tharisa Minerals (Pty) Ltd, 2026).

2.2 PROJECT LOCATION

The proposed BESS Development will be located within the Tharisa Mine. Specific location details are provided in Table 2-1. Refer to Figure 2-1 for the locality map.

Table 2-1 - Project Location Details

Parameter	Description
Farm Name and Portion	Portion 317 of Farm K/Kraal 342 JQ
Local Municipality	Rustenburg Local Municipality
District Municipality	Bojanala Platinum District Municipality
Province	North West Province
Site Context	Located within the existing Tharisa Mine footprint
Land Use	Mining
Closest Town	Marikana, approximately 5 kilometres (km) north
Access	Existing internal mine access roads
Coordinates	Latitude: 25°44'29.20"S Longitude: 27°29'33.76"E

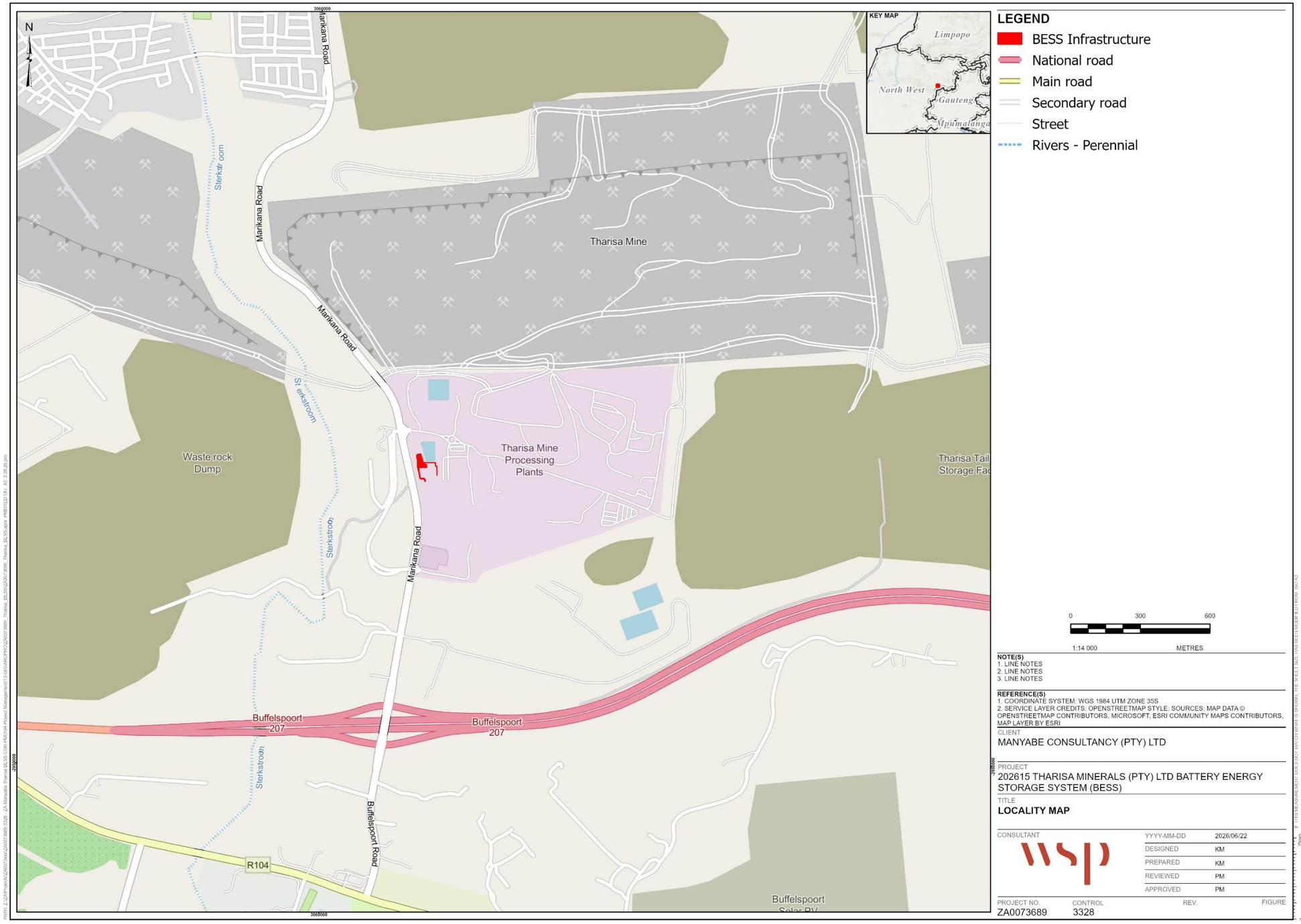

Figure 2-1 - Project Layout Plan

2.3 PROJECT LAYOUT AND COMPONENTS

The proposed Project comprises a BESS facility with an approximate development footprint of 1 200 square metres (m²).

The core infrastructure consists of a Redox One RFB 625 Iron-Chromium Flow Battery system, which is containerised and incorporates electrochemical stacks positioned above electrolyte storage tanks. The system is supported by a Power Conversion System (PCS), a rebalancer unit, and a heating and cooling unit to regulate electrolyte temperature during operation.

Electrolyte storage is provided within tanks with a combined capacity of approximately 86 cubic metres (m³), while the rebalancer system utilises additional chemicals with a total volume of approximately 12 m³. These components are housed within a bunded area designed to ensure appropriate containment and compliance with safety requirements.

Supporting infrastructure includes:

- A temporary construction laydown area;
- An operations and maintenance container;
- An internal access road connecting to the existing mine infrastructure;
- Stormwater management measures integrated with existing systems; and
- Perimeter fencing enclosing the facility.

The development will be integrated into the existing Tharisa Mine layout and does not require expansion into undeveloped land.

2.4 DESIGN CHARACTERISTICS RELEVANT TO CIVIL AVIATION

The proposed Project comprises low-profile, ground-mounted infrastructure, which is a key consideration in the civil aviation assessment.

The BESS Development consists of containerised systems with a maximum height of approximately 6.6 mAGL. All permanent infrastructure is ground-based and confined to the defined project footprint, with no vertically elevated elements such as towers or stacks.

During the construction phase, activities may involve the use of mobile cranes and lifting equipment associated with installation works. Based on standard construction practices, these are expected to reach a maximum height of approximately 60 mAGL under worst-case conditions (Redox One, 2026; Tharisa Minerals (Pty) Ltd, 2026).

3 ENVIRONMENTAL SENSITIVITY ACCORDING TO THE DFFE SCREENING TOOL REPORT

3.1 OVERVIEW OF THE DFFE ASSESSMENT

The DFFE Screening Tool, as required by the EIA Regulations 2014, as amended, provides a list of specialist studies that may be necessary to inform the registration processes. According to the tool, "*It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist studies, including the provision of photographic evidence of the site situation*".

The DFFE Screening Tool is designed to classify the potential environmental sensitivity of a site and to guide the level of specialist input required during the registration processes. Using this tool, a Screening Report was generated to inform the scope of the assessment.

3.2 CIVIL AVIATION SENSITIVITY

The Screening Tool identifies the Project site as having an overall "High" sensitivity in respect of the Civil Aviation Theme.

This sensitivity is associated with the presence of:

- Dangerous airspace (Flight Area Dangerous (FAD)); and
- Conservatively identified restricted airspace (Flight Area Restricted (FAR))

as demarcated in the vicinity of the Project site (DFFE, 2026).

The Project footprint, as illustrated in the Screening Tool output (refer to Table 3-1 and Figure 3-1), falls within an area classified as dangerous airspace, with restricted airspace identified as a conservative screening outcome, resulting in a high sensitivity rating.

Table 3-1 - Civil Aviation sensitivity identified in the DFFE Screening Report

Theme	Very High Sensitivity	High Sensitivity	Medium Sensitivity	Low Sensitivity
Civil Aviation Theme		X		

Source: DFFE (2026)

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Dangerous and restricted airspace as demarcated

Figure 3-1 - Map and Description of the Relative Civil Aviation Theme Sensitivity

Source: DFFE (2026)

4 FINDINGS

4.1 PHOTOGRAPHIC DOCUMENTATION OF THE PROJECT AREA

A site visit was undertaken by WSP to verify the conditions of the Project area and the surrounding environment.

The site visit confirmed that:

- The Project area comprises low-lying, disturbed ground within an active mining environment;
- Surrounding land uses include open pit mining, processing infrastructure and internal haul roads;
- No aviation-related infrastructure (e.g., towers, navigation aids or radar installations) is present within or immediately adjacent to the Project footprint; and
- The area is not characterised by vertical structures that would present an aviation obstacle.

The site photographs are presented below (Plate 4-1 – Photographs). The accompanying map in Figure 4-1 illustrates the points from which the site photographs were taken, providing spatial context to the Project site.

No	**Photographs taken from a vantage point located to the south and east of the identified BESS Development area, parallel to and adjacent to Marikana Road.** **The approximate coordinates of the photo location are 25°44'29.20"S; 27°29'33.76"E.**
1.	

No	Photographs taken from a vantage point located to the south and east of the identified BESS Development area, parallel to and adjacent to Marikana Road. The approximate coordinates of the photo location are 25°44'29.20"S; 27°29'33.76"E.
2.	
3.	

No	Photographs taken from a vantage point located to the south and east of the identified BESS Development area, parallel to and adjacent to Marikana Road. The approximate coordinates of the photo location are 25°44'29.20"S; 27°29'33.76"E.
4.	
5.	

Plate 4-1 – Photographs the Project Site

Figure 4-1 – Site Photographs in relation to the site

4.2 SITE SENSITIVITY STATUS VERIFICATION

The DFFE Screening Tool has identified one (1) civil aviation sensitivity category related to civil aviation installations near the Project site (DFFE, 2026). This sensitivity is associated with the presence of dangerous and restricted airspace. This sensitivity was verified through a review of the ATNS Republic of South Africa (RSA) Airspace Dataset (2026) and project-specific map overlays.

4.2.1 DANGEROUS AIRSPACE (FAD* ZONES)

4.2.1.1 Dangerous Airspace – FAD70E (Magaliesberg Flying Training Area East)

The Project site is located within the Magaliesberg Flying Training Area (East), designated as FAD70E (also referred to as Magaliesberg East), as shown on Figure 4-2.

FAD70E is classified as dangerous airspace, extending from ground level (GND) to Flight Level 100 (FL100). This designation applies over a broad geographic area and is primarily associated with general aviation and flying training activities (ATNS, 2021; SACAA, 2022).

The mapping confirms that the BESS Development footprint falls within the lateral extent of FAD70E, thereby triggering a high sensitivity classification under the DFFE Screening Tool. The designation represents a regional airspace control measure and is not linked to a specific aviation installation located at or near the Project site.

4.2.1.2 Dangerous Airspace – FAD70W (Magaliesberg Flying Training Area West)

A review of the ATNS RSA Airspace Dataset (2026) further indicates the presence of FAD70W, which is the Magaliesberg Flying Training Area (West) in the broader area. FAD70W is similarly designated as dangerous airspace, extending from GND to FL100 activities (ATNS, 2021; SACAA, 2022).

The spatial analysis confirms that FAD70W is located at least approximately 940 metres (m) east (Figure 4-3) of the Project site, and the BESS Development footprint does not fall within the lateral extent of FAD70W.

Accordingly, while FAD70W occurs in the wider regional context, it does not directly influence or constrain the Project site.

4.2.2 RESTRICTED AIRSPACE (FAR* ZONES)

The DFFE Screening Tool output further indicates that the Project site may be located within or near restricted airspace (FAR), contributing to the overall high-sensitivity classification.

However, verification against the ATNS RSA Airspace Dataset (2026) confirms that the Project site is not located within, nor in proximity to, any demarcated restricted airspace (FAR) zones (ATNS, 2021; SACAA, 2022).

* SACAA defined and published airspace designations: FAR = Restricted Areas, FAD = Dangerous Areas

The restricted airspace sensitivity identified by the Screening Tool is therefore considered to represent a conservative, regional-level screening outcome, rather than a site-specific constraint applicable to the Project footprint.

4.2.3 OTHER SITE SENSITIVITY STATUS FINDINGS

In addition to the civil aviation sensitivities identified in the DFFE Screening Tool Report, including the dangerous and restricted airspace classifications discussed above, a broader spatial and aeronautical dataset review was undertaken to identify any other civil aviation sensitivity features that may be relevant to the Project site (ATNS, 2026; Google Earth, 2026).

4.2.3.1 Proximity to Aerodromes (35 km Radius Assessment)

A 35 km radius assessment was undertaken to identify the presence of civil aviation aerodromes in the broader Project area (refer to Figure 4-4). The assessment indicates that the following aerodromes are located within or near the outer extent of the radius:

- Rustenburg Airfield (FARG[†]):

  The Rustenburg Airfield is a general aviation aerodrome serving light aircraft operations and local aviation activity in the Rustenburg area. It is located approximately 25 km northwest of the Project site. Given its scale, function, distance from the Project and the Project's low-profile infrastructure, no site-specific obstacle or operational constraints on the Project are anticipated (ATNS, 2020; SACAA, 2023).

- Orient Airfield (FAOI[†]):

  The Orient Airfield is an uncontrolled general aviation aerodrome used primarily for light aircraft and recreational flying activities. It is located approximately 34 km south-southeast of the Project site. Given its scale, function, distance from the Project and the Project's low-profile infrastructure, no site-specific obstacle or operational constraints on the Project are anticipated (ATNS, 2020; SACAA, 2023).

- Brits Airfield FABS[†]):

  The Brits Airfield is a small general-aviation aerodrome supporting light-aircraft operations and flight training. It is located approximately 35 km east of the Project site, placing it at the outer edge of the 35 km assessment radius. Given its scale, function, distance from the Project and the Project's low-profile infrastructure, no site-specific obstacle or operational constraints on the Project are anticipated (ATNS, 2020; SACAA, 2023).

In addition to the above, site verification indicated that low-frequency aerial activity does occur in the broader area. The site representative confirmed that small aircraft are occasionally observed flying over or near the site, with occurrences described as infrequent (approximately once every few weeks).

[†] International Civil Aviation Organisation (ICAO) assigned code for the respective airports worldwide. FA = South Africa:

This observation supports the interpretation that aviation activity within the area is limited and does not represent regular or intensive use of the airspace.

No additional major aerodromes were identified within a 35 km radius. Importantly, no aerodromes, airstrips or aviation infrastructure are located within proximity to the Project footprint, and none impose site-specific operational or obstacle-related constraints on the proposed development.

4.3 COMMENT FROM SACAA

Comment from SACAA will be requested as part of the registration process. This section will be updated accordingly.

4.4 COMMENT FROM ATNS

Comment from ATNS will be requested as part of the registration process. This section will be updated accordingly.

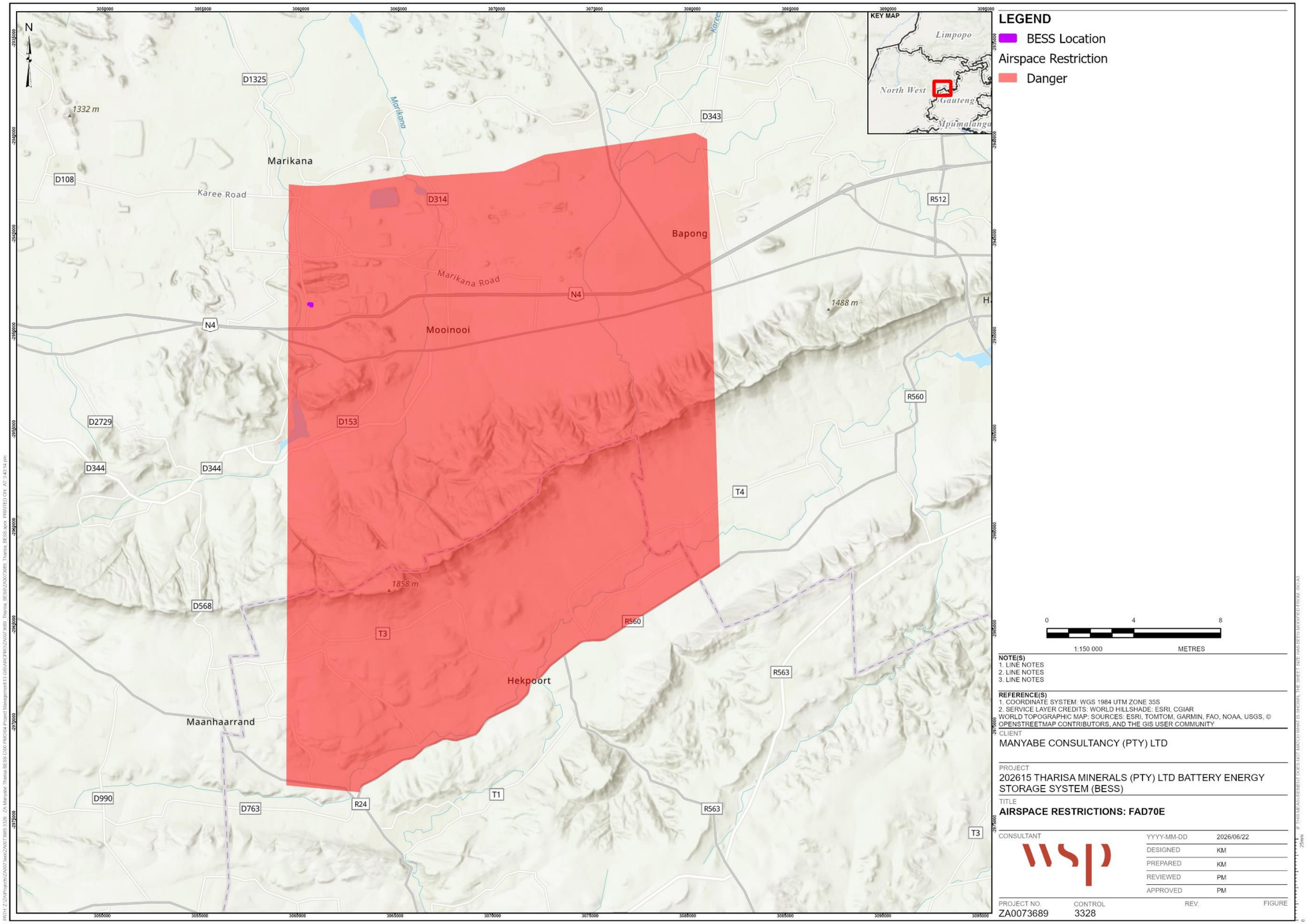

Figure 4-2 – Airspace Restricted Zone – Magaliesberg Flying Training Area (East)

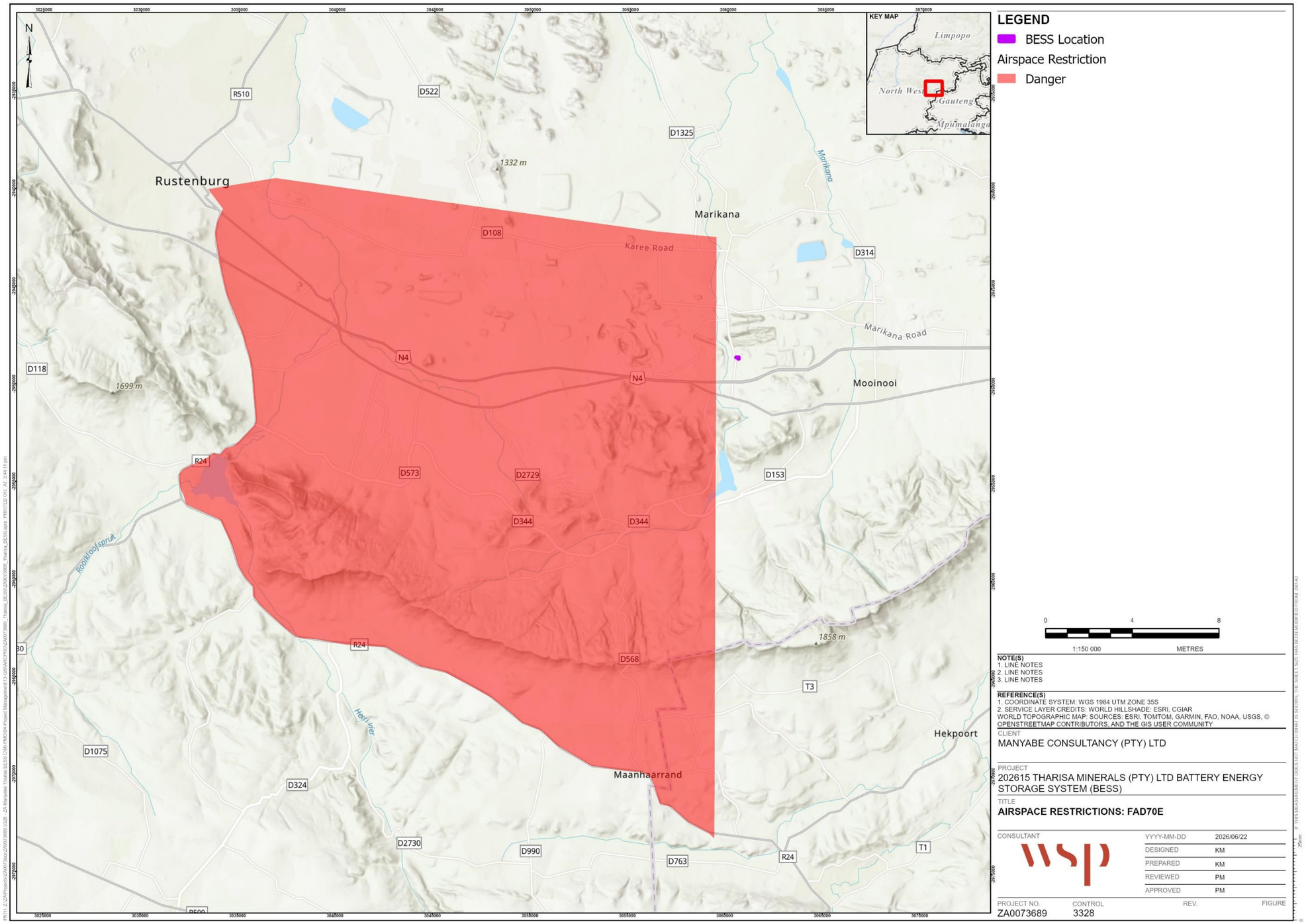

Figure 4-3 - Airspace Restricted Zone – Magaliesberg Flying Training Area (West)

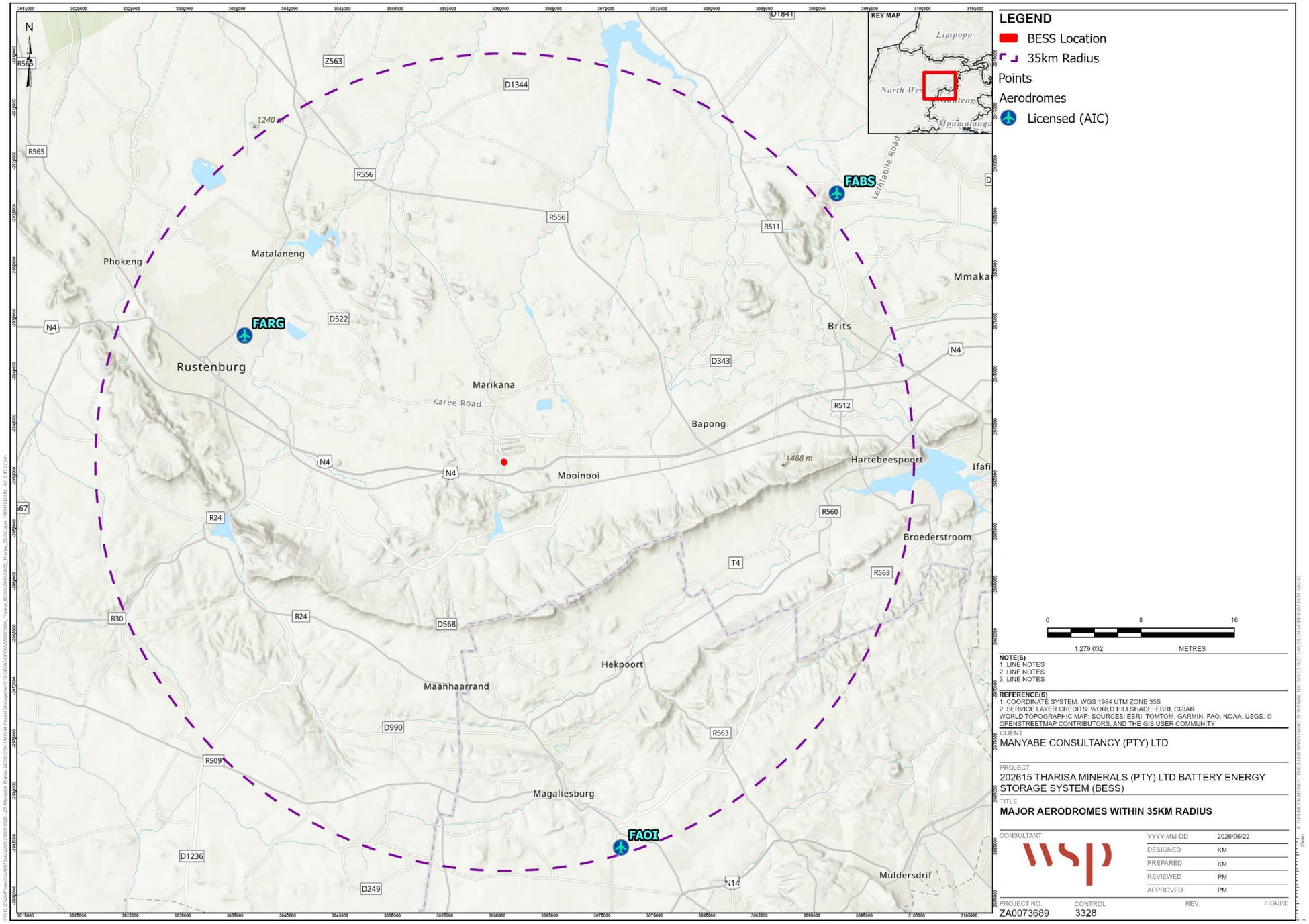

Figure 4-4 - Major Aerodromes within a 35km Radius

5 CIVIL AVIATION IMPACT

5.1 DANGEROUS AIRSPACE (FAD ZONES)

5.1.1 DANGEROUS AIRSPACE –FAD70E (MAGALIESBERG FLYING TRAINING AREA EAST)

The proposed BESS Development comprises low-profile, containerised infrastructure with a maximum height of approximately 6.6 mAGL and will not introduce vertically intrusive structures. Based on its height, scale and footprint, the development will not obstruct or interfere with the use of the airspace.

Therefore, the presence of the Magaliesberg Flying Training Area East is not considered to represent a constraint to the proposed development.

5.1.2 DANGEROUS AIRSPACE – FAD70W (MAGALIESBERG FLYING TRAINING AREA WEST)

The Magaliesberg Flying Training Area West is located in the broader regional context; however, it occurs approximately 940 m east of the Project site and does not overlap with the Project footprint.

As such, no interaction between the Project and this airspace is anticipated, and no impact on aviation operations associated with this airspace is expected.

5.1.3 RESTRICTED AIRSPACE (FAR ZONES)

The Screening Tool indicates potential proximity to restricted airspace; however, verification confirms that no restricted airspace occurs within or near the Project footprint. No impact is anticipated.

5.2 OTHER SITE SENSITIVITY STATUS FINDINGS

Aerodromes identified within a 35 km radius (i.e., Rustenburg Airfield, Orient Airfield and Brits Airfield) are general aviation facilities supporting light aircraft and training activities. None introduces obstacle limitation or operational constraints.

Given their distance and the low-profile nature of the proposed development, no impact on aerodrome operations or aviation safety is anticipated.

5.3 IMPACT SUMMARY

The high sensitivity assigned by the DFFE Screening Tool to the Project site is driven by the presence of FAD70E (Magaliesberg Flying Training Area East) and the broader regional airspace context.

However, these sensitivities are regional in nature and do not impose site-specific constraints on the proposed development.

The Project:

- Is confined to an existing mining footprint;
- Comprises low-height, ground-mounted infrastructure; and
- Does not introduce obstacles or operational interference within the airspace.

Accordingly, no impacts on airspace use, flight operations, or aviation infrastructure are anticipated.

6 CONCLUDING COMPLIANCE STATEMENT

The DFFE Screening Tool has identified the Project site as having a “High” sensitivity in relation to civil aviation installations, primarily associated with the presence of dangerous airspace (FAD70E – Magaliesberg Flying Training Area East) within the broader Project area.

This sensitivity is acknowledged. However, the findings of this Civil Aviation Compliance Statement confirm that the proposed Tharisa BESS Development will not result in any direct or indirect impact on civil aviation operations, airspace, or infrastructure.

The identified sensitivity is considered to reflect regional airspace classifications rather than site-specific constraints applicable to the Project footprint.

No further civil aviation-related investigations are therefore required to inform the registration process for the proposed Project.

7 REFERENCES

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Tharisa Minerals (Pty) Ltd. (2026). *Tharisa BESS Project Description v1 (14 May 2026).* Project documentation provided by the client.

Appendix A

DFFE SCREENING TOOL REPORT

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

EIA Reference number: N/A

Project name: PROPOSED THARISA BATTERY ENERGY STORAGE SYSTEM (BESS) DEVELOPMENT

Project title: PROPOSED THARISA BATTERY ENERGY STORAGE SYSTEM (BESS) DEVELOPMENT

Date screening report generated: 12/06/2026 09:20:18

Applicant: Tharisa Minerals (Pty) Ltd

Compiler: Mpho Manyabe of Manyabe Consultancy (Pty) Ltd

Compiler signature: .....

Application Category: Utilities Infrastructure|Electricity|Distribution and Transmission|Substation

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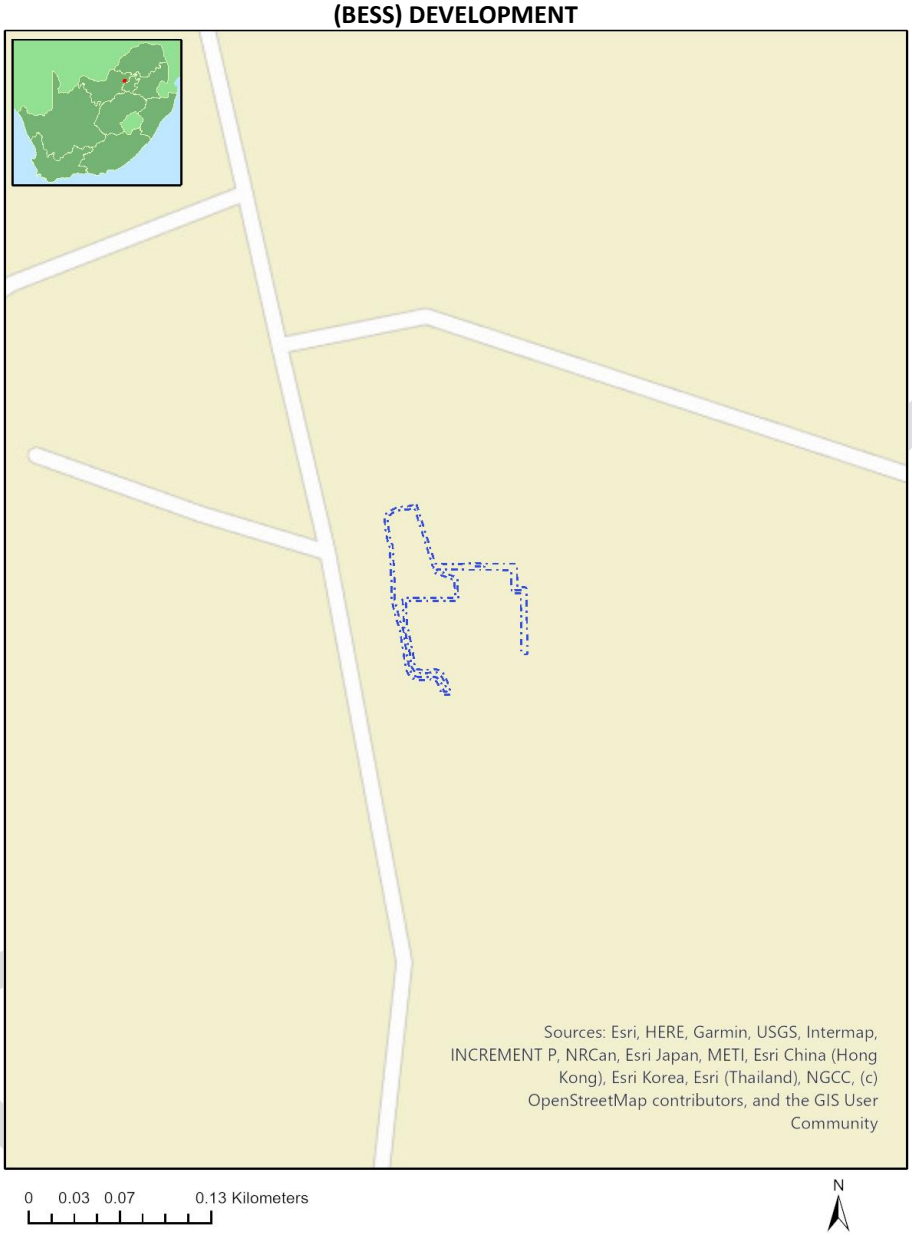
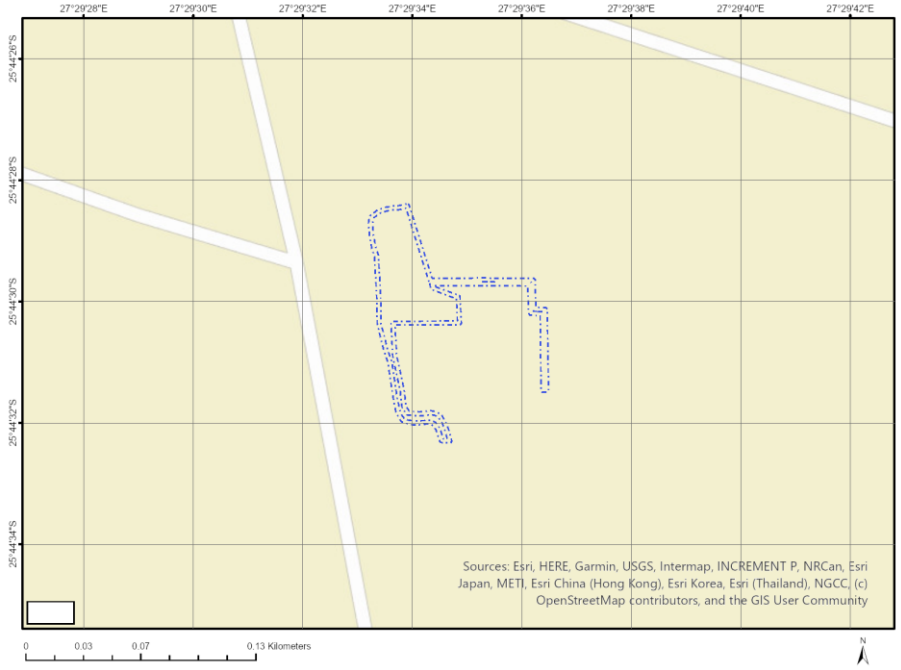
Proposed Project Location

Orientation map 1: General location

General Orientation: PROPOSED THARISA BATTERY ENERGY STORAGE SYSTEM (BESS) DEVELOPMENT



Map of proposed site and relevant area(s)



Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1		342	0	25°44'9.9S	27°28'36.62E	Farm
2		342	317	25°44'37.76S	27°29'59.47E	Farm Portion

Development footprint[1] vertices:
No development footprint(s) specified.

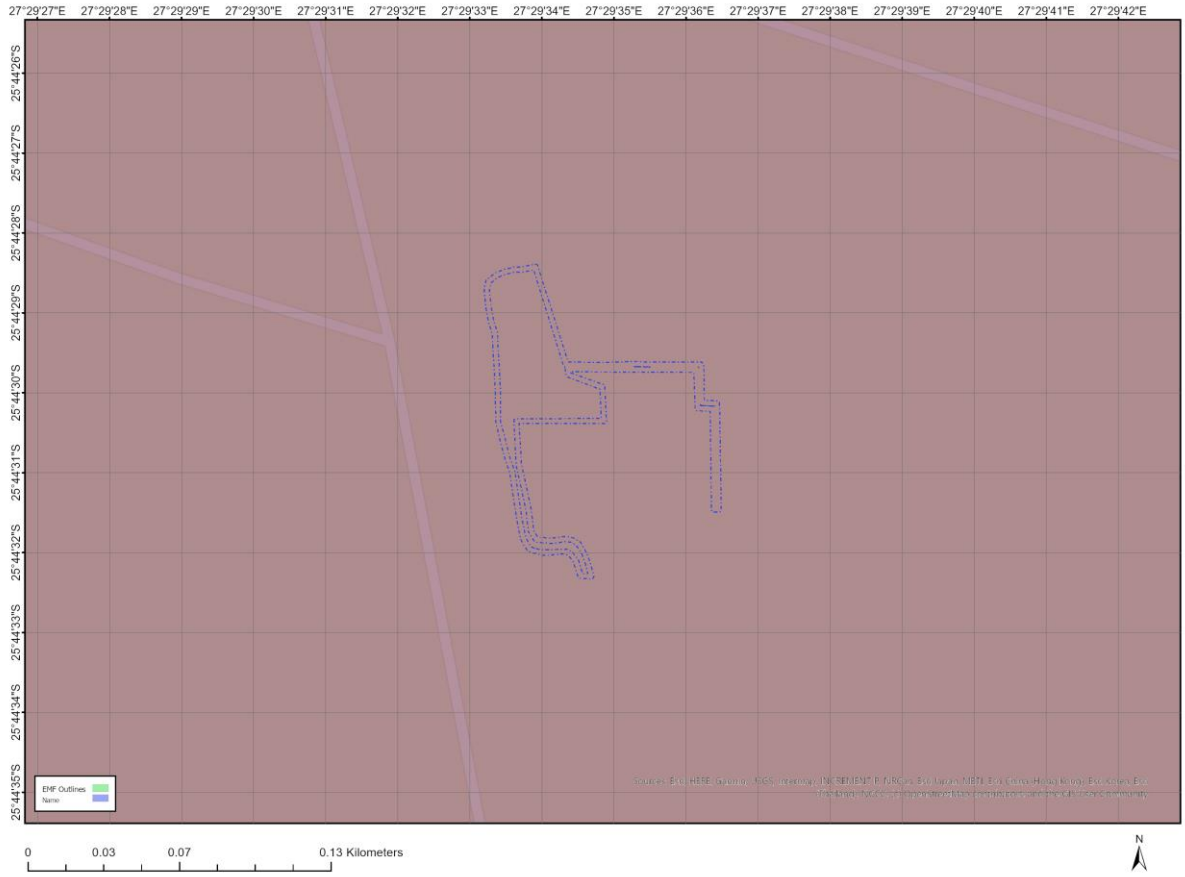
Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2283/AM2	Solar PV	Approved	7.7
2	12/12/20/2283/AM3	Solar PV	Approved	7.7
3	14/12/16/3/3/2/2119	Solar PV	Approved	11.8
4	12/12/20/2283	Solar PV	Approved	7.7
5	14/12/16/3/3/1/1297	Solar PV	Approved	12.1
6	12/12/20/2145	Solar PV	Approved	7.6

[1] "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

7	12/12/20/2330	Solar PV	Approved	28.5
8	14/12/16/3/3/1/936	Solar PV	Approved	4.9
9	14/12/16/3/3/1/431	Solar PV	Approved	9

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Bojanala EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/BojanalaEMF.pdf

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: **Utilities Infrastructure|Electricity|Distribution and Transmission|Substation**.

Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Air Quality-Waterberg-Bojanala Priority Area	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/gg39489_nn1207a.pdf
Strategic Gas Pipeline Corridors-Phase 3: Richards Bay to Gauteng	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Combined_GAS.pdf
Main Electricity Distribution Substation	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/Distribution_Transmission.pdf
South African Conservation Areas	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/SACAD_OR_2025_Q3_Metadata.pdf

Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		X		
Animal Species Theme			X	
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme				X
Paleontology Theme			X	
Plant Species Theme				X
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the known impacts associated with the proposed development, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

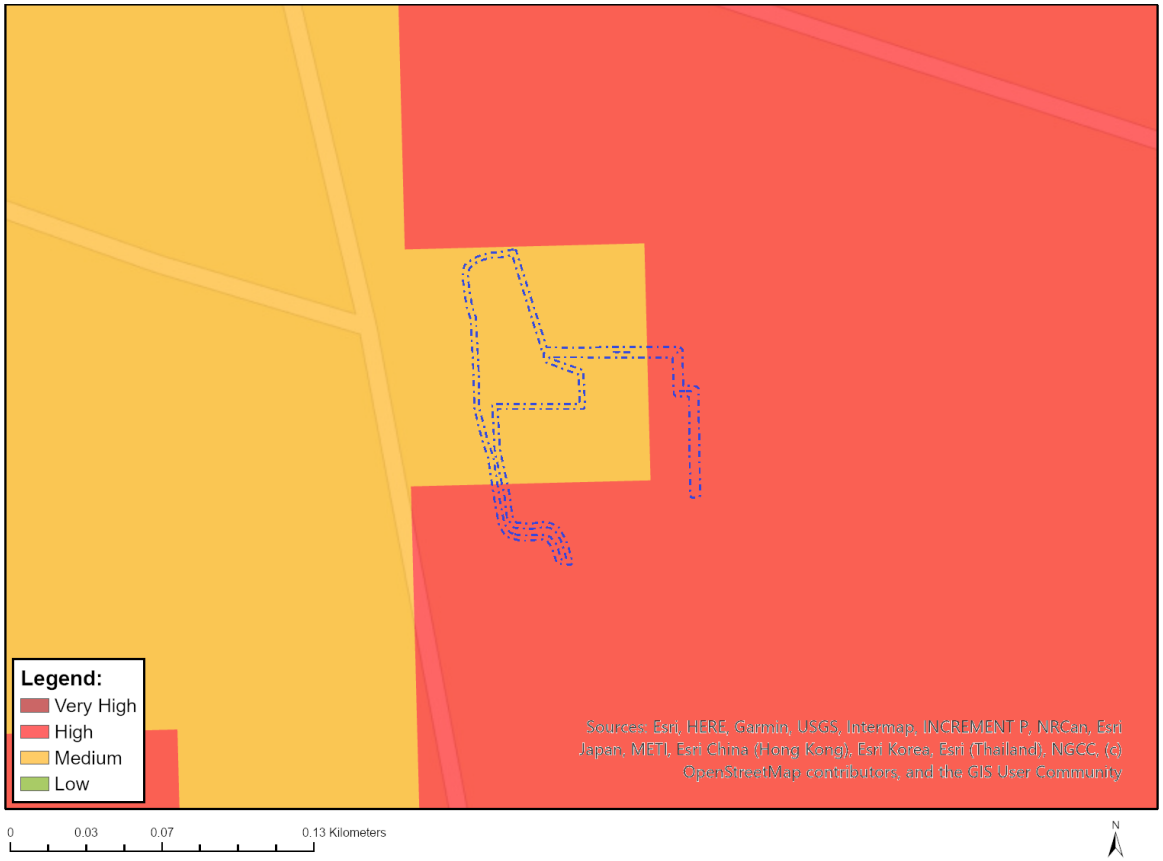
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/GuidanceforHIA.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/GuidanceforPIA.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_

		Protocols.pdf
5	Aquatic Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf
6	Geotechnical Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
7	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
8	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

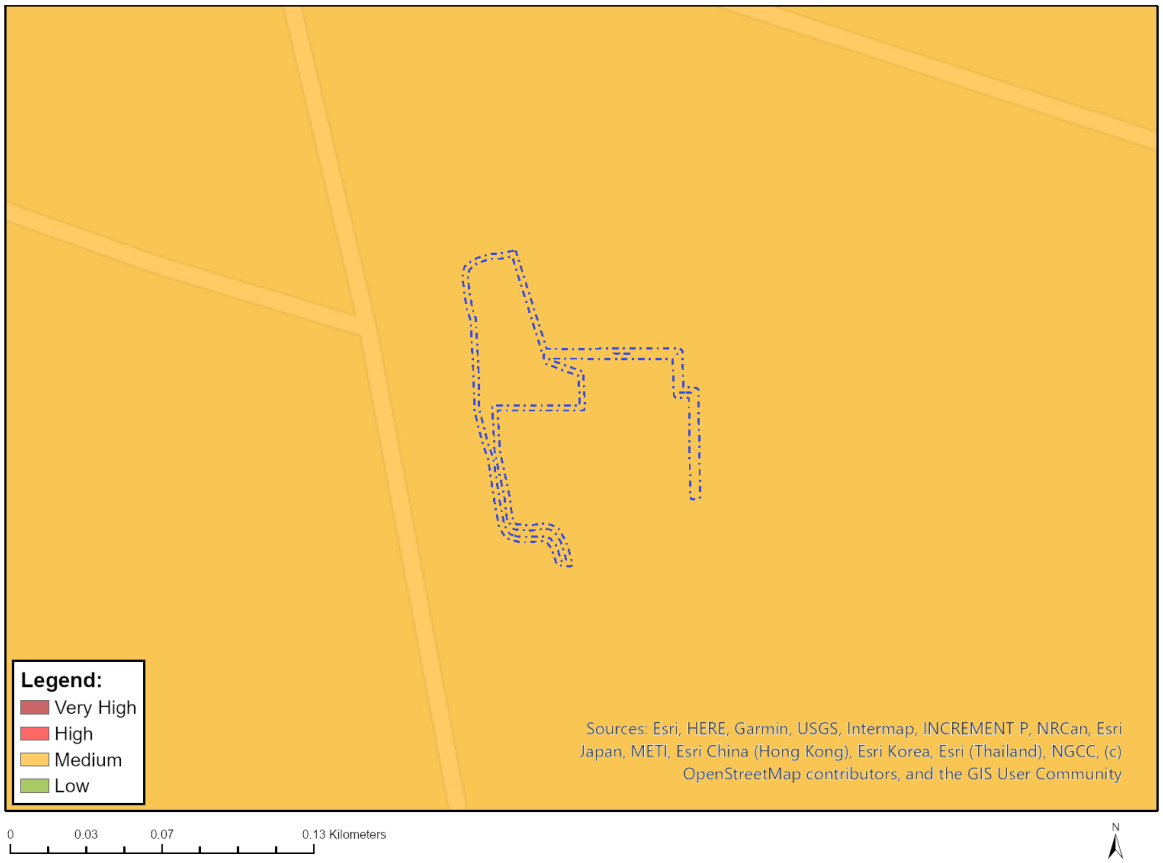


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	08. Moderate
Medium	07. Low-Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Dasymys robertsii

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

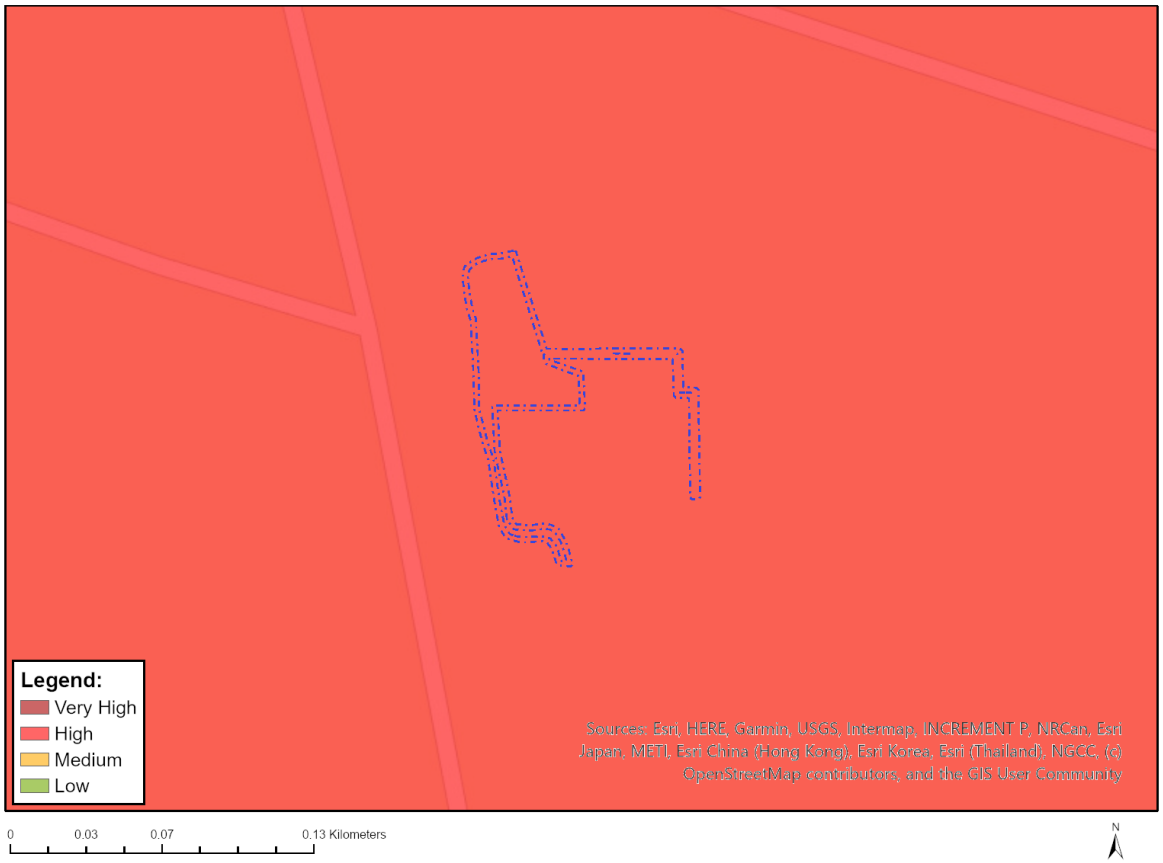
MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Dangerous and restricted airspace as demarcated

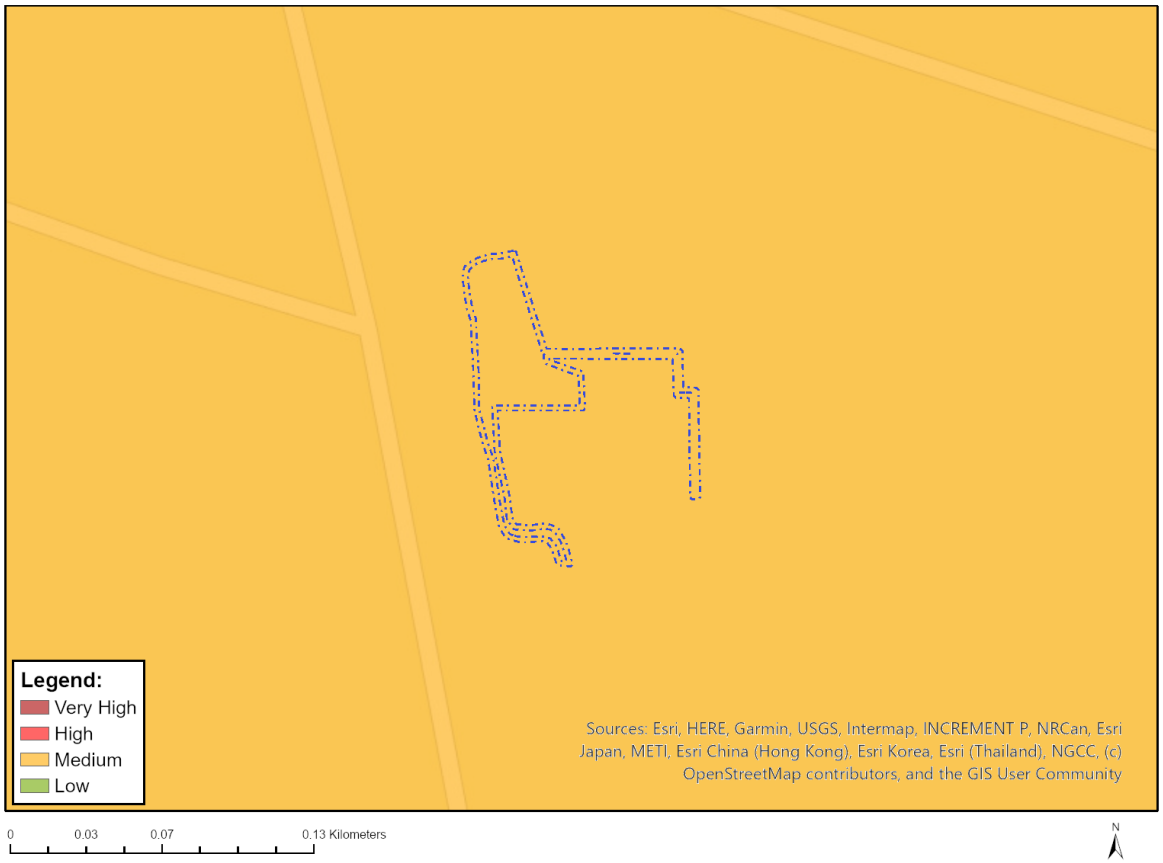
MAP OF RELATIVE DEFENCE THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Features with a Medium paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY

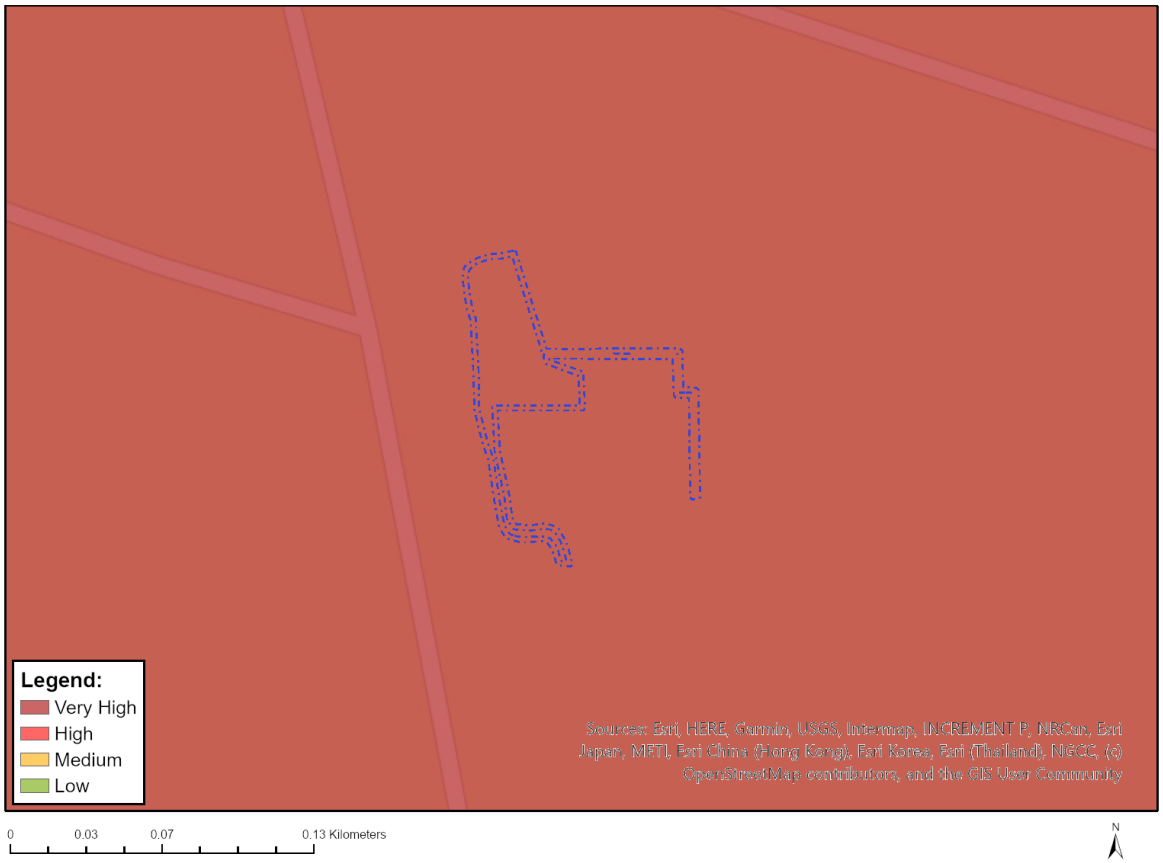
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	ESA1
Very High	EN_Marikana Thornveld

Appendix B

SPECIALIST'S CV

Phindile Mashau

Planning and Advisory, Environmental Assessment Practitioner

CAREER SUMMARY

Phindile is an experienced environmental management professional with over a decade of expertise in environmental authorisation applications, assessments, and compliance. Her skills include project management, environmental and social impact assessments (EIA/ESIA), Phase 1 site assessments/due diligence, stakeholder engagement, permitting, environmental health and safety (EHS) auditing, and public participation.

Phindile has managed projects in South Africa, Namibia, Nigeria, Lesotho, the Kingdom of Saudi Arabia, Zambia, Mozambique, and Côte d'Ivoire, working with local legislation and international frameworks such as the World Bank Environmental and Social Framework, IFC Performance Standards, the Equator Principles, and KfW Development Bank guidelines.

Multilingual, Phindile is proficient in XiTsonga, English, Afrikaans, Tshivenda, isiZulu, Setswana, and isiXhosa (ranging from native to elementary). Her training includes certifications in ISO 14001, OHSAS 18001, SAMTRAC, and leadership development.

3 years with WSP

10 years of experience

Area of expertise

Impact Assessment
Permitting
Environmental Health & Safety Auditing
Public Participation
Environmental Feasibility
Phase 1 Assessments

Language

Tsonga – Native
English – Fluent
Afrikaans – Advanced
Zulu – Advanced
Sotho – Advanced
Venda – Fluent

EDUCATION

Bachelor of Science (Honours) Environmental Management, University of South Africa, Pretoria	2016
Bachelor of Science Environmental Management, Chemistry Stream, University of South Africa	2014

ADDITIONAL TRAINING

Certificate: Occupational Health and Safety Act	2014
Introduction to SAMTRAC	2015
Introduction, implementation and auditing − ISO 14001 and OHSAS 18001	2017
Leadership Development Programme	2023

PROFESSIONAL MEMBERSHIPS

Phindile Mashau

Planning and Advisory, Environmental Assessment Practitioner

EAPASA (Registered EAP) – 2019/1731	2016
SACNASP (Pr.Nat.Sci.) – 115915	2017
IAIASA (Professional Member) – 5154	2022

PROFESSIONAL HISTORY

WSP Group Africa (Pty) Ltd – Midrand	2022 – Present
Golder Associates Africa (Pty) Ltd – Midrand	2021 – 2022
AECOM SA (Pty) Ltd – Pretoria	2016 – 2021
Sandown Motors Limited – Pretoria	2015 – 2016
Department of Science and Technology, South Africa – Pretoria	2015

PROFESSIONAL EXPERIENCE

Infrastructure (Defence and Civil Aviation Compliance Statements)

Manyabe Consultancy (Pty) Ltd / NECSA, Defence and Civil Aviation Compliance Statements for the MPR Project, Pelindaba, North West Province, South Africa
2026
Environmental Assessment Practitioner (EAP)
Prepared the Defence Compliance Statement and Civil Aviation Compliance Statement to support the Basic Assessment process for Phase 2 Part II geotechnical and geophysical investigations (including seismic survey) in support of the proposed Multi-Purpose Reactor (MPR) Project at NECSA, Pelindaba. Scope included mapping using the DFFE Screening Tool, review of spatial datasets for proximity to defence/civil aviation infrastructure, and drafting formal letters for the client EAP to submit to SANDF, SACAA and ATNS, in accordance with the relevant DFFE protocols.

Transnet National Ports Authority (TNPA), Defence and Civil Aviation Compliance Statements for the Proposed Point Container Terminal (PCT) at the Port of Durban, KwaZulu-Natal, South Africa
2025
Environmental Assessment Practitioner (EAP)
Prepared Defence and Civil Aviation Compliance Statements in support of the ESIA / Environmental Authorisation process for the proposed Point Container Terminal (PCT) at the Port of Durban. The work included sensitivity screening in line with the DFFE Screening Tool protocols, incorporation/management of authority and stakeholder inputs (including SACAA / ATNS and TNPA comments)

Sasol NATCOS, Defence Compliance Statement for the Fynnland Site (Storage Tanks), Durban, South Africa
2026
Environmental Assessment Practitioner (EAP)
Currently drafting the Defence and Civil Aviation Compliance Statements for the Sasol NATCOS Fynnland project, including desktop screening and spatial verification, documentation of assumptions/limitations, and alignment with DFFE protocol requirements.

Sasol South Africa Limited, Basic Assessment / Specialist Gap Inputs for DLA Plant, PRIMADET Magazines and Bridge (Ekandustria Operations), Gauteng, South Africa
2025 – Present

Project Manager
Project Manager for the environmental authorisation support work for Sasol Ekandustria Operations, including construction of a Dextrinated Lead(II) Azide (DLA) plant and associated magazine, expansion of two 7.5-ton PRIMADET storage magazines, and a low-level bridge crossing with associated perimeter fencing. Role includes drafting of the required Defence and Civil Aviation Compliance Statements.

Industry

Scaw South Africa (Pty) Ltd, Environmental Audits, Gauteng, South Africa
2024 – 2024
Project Manager
Independent Environmental Assessment Practitioner (EAP) to conduct three separate audits to assess the level of compliance with the conditions of an Integrated Water Use Licence (IWUL), Waste Management Licences (WMLs) and an Environmental Authorisation (EA).

Scaw South Africa (Pty) Ltd, Basic Assessment Process for the Co-Gen Plant, Gauteng, South Africa
2024 – 2024
Project Manager
Environmental Assessment Practitioner (EAP) to
undertake the application for Environmental Authorisation (EA) and amendment of the site's Atmospheric Emission Licence (AEL) for the expansion of the cogeneration power Plant by the addition of two Gas-to-Energy Power (GTP) plants.

National Petroleum Refiners of South Africa (Pty) Ltd: Environmental Authorisation and Atmospheric Emission Licence Amendment for the Hybrid Flow Scheme Upgrade, Sasolburg, Free State
2023 – 2024
Project Manager and EAP
The refinery requires various infrastructure upgrades and reconfigurations to implement a Hybrid Refinery Flow Scheme (the proposed project) to ensure compliance with the Clean Fuels II (CF II) requirements and the Biofuels Regulatory Framework (BFRF) Regulations, 2020, as its current flow scheme results in products that do not meet the required specifications. To make the necessary changes to the facility, Natref must undertake a Basic Assessment (BA) process supported by an Environmental Acoustic Impact Assessment, an Air Quality Impact Assessment, and an Environmental Climate Change Impact Assessment, as well as amend its current Atmospheric Emission Licence (AEL).

Grindrod Terminals Richards Bay (Pty) Ltd, Section 24G and Air Emissions Licence Application for the Sea Munye Terminals, Richards Bay, South Africa
EAP
2022 – 2024
The client had to apply for the regularisation of a listed activity which commenced without an environmental authorisation in terms of Section 24G of the NEMA.

Richards Bay Coal Terminal (RBCT), Operational EMPr, Richards Bay, South Africa
2022 – 2022
EAP
The project included consolidating various permitting licences/authorisations and internal policies into a single EMPr, similar to an environmental management system, to support improved environmental performance at the terminal**.**

Amazon Data Services, Basic Assessment for the Proposed Installation of Back-up Generators and Diesel Storage for Data Centres in the Western Cape, South Africa
Environmental Scientist and Project Manager
2020 – 2021
The client is undertaking planning and infrastructure provision for the installation of diesel storage facilities and generators associated with one of their data storage facilities, with the intention of establishing an independent uninterrupted power supply (UPS) system to provide energy relief in the event that there is a loss or interruption of the municipal power supply.

Xylem Water Solutions, Environmental Health and Safety (EHS) Audits, Northwest, Gauteng and Western Cape, South Africa
EHS Auditor
2019 – 2019
The client was undertaking a triennial evaluation of environmental compliance and environmental management system implementation at three South African facilities, in line with local regulatory requirements. The role included reviewing the previous year's audit findings; reviewing client-specific checklists and audit protocols; preparing and presenting for opening meetings (including chairing); undertaking site inspections and interviews; reviewing relevant company documentation; compiling audit findings; chairing closing meetings; and submitting the audit report to the client.

Smiths Group, Annual EHS Audits, Gauteng, South Africa
Environmental Auditor
2019 -2019
The client was undertaking an annual audit to evaluate environmental compliance and environmental management system implementation. Duties included reviewing the previous year's audit findings; reviewing client-specific checklists and audit protocols; preparing and presenting for opening meetings (including chairing); undertaking site inspections and interviews; reviewing relevant company documentation; compiling audit findings; chairing closing meetings; and submitting the audit report to the client.
Airports Company South Africa SOC Ltd (ACSA), Legal Review and Water Use Licence Application for the redevelopment of the Terminal 2 area at Cape Town International Airport (CTIA), Western Cape, South Africa
2018 – 2019
Environmental Scientist and Assistant Project Manager
ACSA intended to demolish the existing Terminal 2 building and to construct a new building in line with the form, structure and aesthetic. This included the need to abstract groundwater for potable and non-potable uses in support of the redevelopment activities.

Port and Marine

Confidential Client, Construction of a Data Centre, Gauteng, Western Cape, South Africa
Assistant Scientist
2016 – 2016
Permitting framework for the construction and operation of a new Data Centre. The appointment included compiling a comprehensive assessment of the planning and environmental regulatory requirements that will apply to the construction and future operation of such a facility within three coastal ports

Transnet National Ports Authority, Upgrade and Deepening of the Maydon Wharf Berths 5-11 & 15, Port of Durban, KwaZulu-Natal Province, South Africa
2024 – Present
EIA Project Manager

TNPA is proposing to upgrade and deepen the Maydon Wharf Berths 5-11 & 15 to accommodate larger vessels. WSP was appointed to assess the project's potential impact as well as undertake the public participation process.

Transnet National Ports Authority, New Point Container Terminal, Port of Durban, KwaZulu-Natal Province, South Africa
2024 – Present
Project Co-ordinator and Environmental Scientist
TNPA plans to expand the Durban Container Terminal to become a container Hub and to enhance the port infrastructure. WSP was appointed to assess the project's potential impact as well as undertake the public participation process.

TotalEnergies EP South Africa BV (TEEPSA), Environmental and Social Impact Assessment for the proposed offshore production right, additional exploration activities and environmental authorisation on Block 11B/12B, off the Cape South Coast, Western Cape
Environmental Scientist
2023 – 2023
The exploration programme for Block 11B/12B TEEPSA has resulted in gas and associated condensate discoveries. TEEPSA is therefore planning to convert the Exploration Right into a Production Right, together with the Joint Venture (JV) partners. WSP was appointed to assess the project's potential impact as well as undertake the public participation process.

Confidential Client, Subsea Cable Project, Maputo and Nacala, Mozambique
Environmental Scientist tasked to compile the Permit Feasibility Study (PFS) and Permit Matrices (PM) in the landing country
2020 – 2021
The project entails a proposed private marine subsea cable system that will connect different continents. Responsibilities included conducting PFSs to determine country-specific permitting requirements for the project. The project also includes the implementation of marine, terrestrial, environmental and land use permitting processes. The project area of influence includes territorial waters and the exclusive economic zone (EEZ). The purpose of the project is to significantly increase the capacity, quality and availability of internet connectivity between continents.

Road and Rail

Transnet SOC Ltd, Environmental Screening for the Capacity Simulation of the Optimised 16MTPA Manganese Solution, Northern Cape, Western Cape and Eastern Cape, South Africa
2023 – 2023
Project Manager and EAP
Transnet has appointed WSP to undertake a review of the EAs that were previously granted to check the applicability to the current project and to provide recommendations on the need and scope of EA requirements in terms of the national environmental legislation.

Société de Péage du Lualaba (SOPEL), Environmental and Social Impact Assessment and Environmental and Social Management Plan for the By-Pass Toll Road in Kolwezi, Democratic Republic of Congo (DRC)
Environmental Consultant
2021 – 2022

The client is currently constructing a bypass toll Road, which will divert heavy truck traffic (mining, general freight, agriculture) of over 220 000 trucks per year around the Kolwezi City Centre. This ESIA was compiled during construction in terms of the IFC principles.

Western Cape Department of Transport and Public Works, Environmental Screening Study for the Periodic Maintenance of the MR00189 Old Paarl Road, Western Cape Province, South Africa
2019 – 2020
Project Manager and EAP
The WCG has appointed WSP to conduct an environmental authorisation screening assessment for the proposed project. The purpose of this Screening Study is to identify whether the project requires a permit or license in terms of any applicable environmental laws and associated regulations.

City of Mbombela Local Municipality, Widening of Friedenheim Road, Mpumalanga, South Africa
Environmental Compliance Officer and Environmental Scientist
2017 – 2018
The client undertook a feasibility study to upgrade the existing Friedenheim Road within the city of Nelspruit. Prior to construction, environmental authorisation was required for the upgrading activities.

Lesotho Highlands Development Agency (LHDA), Environmental Management Plan for the repair and upgrade of the Northern Access Road (NAR), Pitseng, Ha Lejone and Ha Seshote, Lesotho
Environmental Scientist and Stakeholder Engagement Facilitator
2018 – 2018
The overall objective of the project is to repair and reseal this section of the NAR with minor safety upgrades. This will include the access road and surfacing at the Mafika Lisiu View Site. The upgrade of the NAR will allow access for the transportation of plant, equipment and materials to construct the PWAR and eventually the Polihali Dam.

Western Cape Provincial Department of Transport and Public Works (DTPW), Basic Assessment for the Reseal works for the Trunk Road 23 Section 2 from Hermon (KM 0.00) to Gouda (KM 17.63), Western Cape,
Environmental Scientist and Public Participation Administrator
2018 – 2019
The client wants to undertake a Basic Assessment process and a Water Use Licence Application (WULA) process in support of environmental authorisation (EA) and WUL required for the proposed reseal and routine road maintenance of Trunk Road Section 2.

South African National Roads Agency Limited (SANRAL), Moloto Road Upgrade (Phase 1 A), City of Tshwane, Gauteng,
Environmental Scientist assisting with the BA process and responsible for the PPP
2018 – 2018
The client wanted to undertake a BA process in support of obtaining EA required for the proposed routine road maintenance and upgrade. The infrastructure associated with the proposed project which requires EA consists of road widening as well as the expansion of culverts and bridges.

City of Mbombela Local Municipality, Basic Assessment for the upgrade of the Bosch Street - R40 (Madiba Drive) Interchange and Road 2296 (Ka Nyamazane Road), Mpumalanga, South Africa
Environmental Scientist
2017 – 2017

Phindile Mashau

Planning and Advisory, Environmental Assessment Practitioner

The client proposed to undertake a feasibility study to upgrade the existing Bosch Road within the city of Nelspruit. Prior to construction, environmental authorisation was required for the upgrading activities. Associated tasks included compiling a BA Report, EMPr, PPP and a WULA

South African National Roads Agency Limited (SANRAL), Moloto Road Upgrade, Gauteng, Mpumalanga and Limpopo, South Africa
Project Administrator
2016 – 2017
Basic Assessment process in support of environmental authorisation required for the proposed routine road maintenance and upgrade. The infrastructure associated with the proposed project which requires environmental authorisation, consists of road widening as well as the expansion of culverts and bridges. WULAs were also required as part of the project.

Attacq Waterfall Investment Company (Pty) Ltd, Upgrade of the K101 Road, Gauteng, South Africa
Candidate Scientist
2016 – 2016
Upgrade of the K101 road between Maxwell Drive and Bridal Vale Road, including the realignment of the existing Provincial Road (P1/2).

Attacq Waterfall Investment Company (Pty) Ltd, Basic Assessment for the K60 Road Detail Design Section 3, Gauteng- South Africa,
Assistant Public Consultation Administrator
2016 – 2016
Amendment to an existing environmental authorisation.

Anglo-American, Environmental Compliance Audit Reports –Chromium Railway Extension, Limpopo, South Africa
Environmental Scientist and Project Manager
2018 – 2020
Anglo was in the process of extending its railway line at the Amandebult Chromium Plant within its Amandebult complex in Thabazimbi. Technical review of Environmental Compliance Audit Reports and Deputy Project Manager.

Transnet SOC Limited, Basic Assessment for the Sishen Railway Link, Western Cape, South Africa
Environmental Scientist
2018 – 2019
Transnet Rail intends to link two existing railway lines in the Sishen area. It is thus assumed that the railway line is not located in an industrial zone, and the new railway line section will be outside of the existing rail reserve. Further, the route alignment of the new railway line section seems to cross a watercourse.

Royal HaskoningDHV South Africa / City of Tshwane, Belle Ombre Bus Depot, Gauteng, South Africa
Assistant Scientist
2016 -2016
The construction of underground CNG and fuel storage tanks at the existing Belle Ombre Bus Depot required environmental authorisation. An EIA and stakeholder engagement process towards environmental authorisation was undertaken

Energy

Eskom Holdings SOC Limited, Basic Assessment (BA) for the proposed Eskom Battery Energy Storage Systems (BESS) in Preiska, Northern Cape, Environmental Scientist and Project Manager
2021 – 2021

The client is undertaking BA process required for the proposed ESKOM 70 Mega Watt, 280 Mega Watt hour BESS and associated infrastructure in Copperton, near Prieska in the Northern Cape.

Eskom Holdings SOC Limited, Water Use Licence (WUL) Audits, Mpumalanga, South Africa
Environmental Auditor
2019 – 2019
The appointment was to conduct an audit at Eskom's Kusile Power Station to assess compliance with the Water Use Licence (WUL), including compliance with water quality requirements for the relevant catchment. Tasks included reviewing the previous year's audit findings; reviewing client-specific checklists and audit protocols; preparing and presenting for opening meetings (including chairing); undertaking site inspections and interviews; reviewing relevant company documentation; compiling audit findings; chairing closing meetings; and submitting the audit report to the client.

Eskom Holdings SOC Limited, Basic Assessment for the proposed Eskom Grid-Scale Battery Storage at Gansbaai, Kleinmond, Stanford, Arniston, Bredasdorp, Struisbaai and Vryheid sub-stations, Western Cape, South Africa
Environmental Scientist, Assistant Project Manager and Stakeholder Engagement Facilitator. Environmental Scientist and
2018 – 2019
Eskom intended to install BESSs to provide ancillary support in terms of enhanced frequency control of the network, reactive power support and improved quality of supply performance in close proximity to existing Distributed Generation Renewable Energy plants.

Eskom Holdings SOC Limited, Erica LILO 400 kV Power Line, Western Cape, South Africa
Environmental Scientist, Public Participation Administrator, Stakeholder Engagement Facilitator and Assistant Project Manager
2017 – 2019
Eskom planned to conduct a Basic Assessment process associated with the construction of a double 400 kV power line. Project included the compilation of baseline information, an impact assessment which incorporated various specialists, EMPr, BA Report and PPP.

CEC GETFiT Hydropower Projects, ESIA and Environmental and Social Management Plan (ESMP) for hydro power stations in Changa and Kabompo, Zambia
Environmental Scientist
2019 – 2021
The client is undertaking two ESIA processes in line with IFC requirements to obtain the necessary permits to construct hydropower dams in support of grid connection in the near future. Responsibilities included compiling screening reports and providing technical support for the peer review of the ESIA process.

Mixed Development

The Red Sea Development Company, Environmental and Social Impact Assessment for an exclusive luxury hospitality accommodation on the Red Sea, Amaala, Kingdom of Saudi Arabia,
Environmental Scientist
ESIA for the development of a luxury hospitality resort on the Red Sea. Project components include: an airport, all infrastructure (Wastewater Water Treatment, Energy provision, primary networks, Water Treatment, Roads, etc.), Residential, Worker accommodation, Island development and the Mainland resort. Duties included the compilation of three (3) Early Earthworks Preliminary Environmental Reviews (PER) and Construction EMPrs.

The Red Sea Development Company, Exclusive luxury hospitality accommodation on the Red Sea, Kingdom of Saudi Arabia
Environmental Scientist
2019 – 2019
Tasks included the compilation of the Early Construction Environmental Management Programmes consisting of mitigation measures for construction (generic construction activities), mitigation measures for operation (asset specific), design guidelines (asset specific) and Sustainability Guidelines for Red Sea- as part of the Environmental and Social Impact Assessment for the development of a luxury hospitality resort on the Red Sea. Project components include: an airport, all infrastructure (Wastewater Water Treatment, Energy provision, primary networks, Water Treatment, Roads, etc.), Residential, Worker accommodation, Island development and the Mainland resort.

Water

Stellenbosch Local Municipality, Basic Assessment and General Authorisation for the Proposed Kayamandi Northern Extension Water Supply Project, Western Cape, South Africa
Environmental Scientist and Project Manager
2019 – 2021
Stellenbosch Municipality is undertaking planning and infrastructure provision for the establishment of the Kayamandi Bulk Water Supply Pipe and Reservoir (the Project). The proposed project is aligned to the Stellenbosch Municipality's Integrated Development Plan (IDP) and is in support of housing and development schemes over the next couple of years.

City of Cape Town (CoCT), Muldersvlei WULA - WULA forms, Section 27 Motivation Report, WULA Technical Report, Western Cape, South Africa
Environmental Scientist, Public Participation Administrator, Stakeholder Engagement Facilitator
2017 – 2020
The CoCT requested services to facilitate the WULA process in support of the Northern Area Bulk Water Augmentation Scheme (NABWAS) for the Muldersvlei component.

Netcare Property Holdings (Pty) Ltd, WULA for the Netcare Femina Dewatering, Gauteng, South Africa
Environmental Scientist
2019 – 2019
Netcare requested services to facilitate baseline information compilation, Impact Assessment, Motivational report, EMPr, Licensing forms, Submission to the Department of Water Affairs (DWS), The purpose was to obtain registration in the form of a General Authorisation (GA) for the abstraction of water from an existing borehole at the Netcare Femina Hospital within the City of Tshwane.

Department of Public Works - KwaZulu-Natal, Water and Sanitation Programme, KwaZulu-Natal, South Africa
Assistant project administrator with the responsibility of liaison between the schools and the technical personnel
Environmental scientist in collating, interpreting and compiling comprehensive geotechnical reports, including results of the site investigations conducted
2017 – 2017
The Department of Public Works (DoPW) commenced with the implementation of a Schools Water and Sanitation Programme for 367 schools in the Kwa-Zulu Natal province in an effort to provide healthy and hygienic ablution facilities for learners and teachers.

Permanent Water Commission (PWC), Noordoewer / Vioolsdrift Dam Feasibility Study ESIA, Namibia / South Africa,
Environmental Scientist and Public Participation Consultant

2016 – 2019
Environmental screening and ESIA study for the proposed Vioolsdrift Dam on the Orange River, on the border of South Africa and Namibia. In support of the feasibility study, an environmental fatal flaw assessment, environmental site selection and ESIA had to be conducted.

Waste

Glencore Operations South Africa (Pty) Ltd, Water Treatment Plant (WTP) at their Colliery, Mpumalanga Province, South Africa
2024 – 2024
Project Manager and EAP
The client proposed to construct a WTP at one of their collieries. WSP was approached to undertake the site selection and environmental authorisation process, inclusive of stakeholder engagement.

Interwaste, Multisand Regional Landfill Environmental Impact Assessment (EIA), Gauteng, South Africa
Candidate Scientist
2017 – 2017
EIA in support of environmental authorisation and a waste management license, for the new Multisand regional landfill in Tshwane. Waste Management Licence permit Interwaste proposed to construct a new Regional Class B Regional Landfill within the City of Tshwane. In support of a waste management license and environmental authorisation, an EIA was conducted.

Department of Environmental Affairs (DEA), Licensing of Unlicensed Landfill Sites 2015, Eastern Cape, Northern Cape and KwaZulu-Natal, South Africa.
Assistant Scientist
2016 – 2016
The DEA commissioned a study to license all the existing unlicensed landfills within South Africa. As part of the 2015 roll-out, an environmental authorisation process required for the licensing of 17 landfills.

Mining

Tronox KZN Sands (Pty) Ltd, Fairbreeze Mine Extension into Heleza Moya Farm, KwaZulu-Natal, South Africa
2023 – Present
Project Manager and EAP
Tronox purchased the Heleza Moya and incorporated this property into the Fairbreeze Mining Rights Area (MRA). Tronox is now making an application to extend their mineral sand mining into parts of Heleza Moya to enable this area to be mined together with the approved Fairbreeze Mine.

New Largo Coal Mine, Environmental Authorisation; Environmental Management Programme; Bankable Feasibility Study; and Application for Water Use Licence, Mpumalanga, South Africa
2021 – 2022
Assistant EAP
To give effect to proposed changes on the previously approved mining plan, the client must apply for amendments to its approved EA and prepare an updated EMPr.

Anglo American, Environmental Compliance Audit Reports in terms of Regulation 34 of The EIA Regulations (2014) as amended, Amandebult complex in Thabazimbi, Limpopo, South Africa
Environmental Scientist and Project Manager
Regulation 34 of the EIA Regulations (2014) require that an EA (including similar authorisations in terms of specific environmental management acts), EMPr and closure plan (where applicable) must be audited by an

independent party with the relevant environmental auditing expertise and the environmental audit report must be submitted to the Competent Authority.

Oil and Gas

Sasol South Africa Limited, Environmental Control Office (ECO), Mpumalanga, South Africa
2024 – Present
Project Manager
Environmental Control Office (ECO) duties for the construction of 6 x 100-ton magazines for trinitrotoluene (TNT) storage and a shooting bay at the Sasol Ekandustria Operations.

Sasol South Africa Limited, Environmental Control Office (ECO), Mpumalanga, South Africa
2024 – Present
Project Manager and Auditor
External Water Use Licence (WUL) compliance audit and compile an audit report according to the requirements of the National Water Act, 1998 (Act. 36 of 1998) (NWA), and Condition 11 of the general conditions outlined in Appendix I of the WUL

Shell Downstream South Africa (Pty) Ltd, Section 24G application for 96 service stations, across South Africa, South Africa
2021 – Present
Project Manager and EAP.
The client took an internal decision to undertake the Section 24G regularisation process to regularise unlawful commencement for their service stations (existing and legacy sites). Duties include stakeholder engagement, legal reviews/assessments and extended authority consultation.

Shell South Africa (Pty) Ltd, Construction of Kroondal N4 Service Stations, Northwest, South Africa
Environmental Compliance Officer
2017 – 2018
Compilation of the EMPr, Compilation of environmental monitoring checklist, ECO
Compliance auditing of construction activities associated with the Shell Kroondal Service Stations, near Rustenburg, against the approved Environmental Monitoring and Auditing Plan (EMAP).

Confidential Client, Development of Gas to Power Plants, KwaZulu-Natal, Western Cape and Eastern Cape, South Africa
Candidate Scientist
2016 – 2016
The company endeavours to establish an energy generation facility (power plant), which includes the identification of potentially suitable sites according to set criteria provided by the client. In addition to two sites identified and screened by the client.

Due Diligence/Phase I Assessments

Confidential Client, Phase I Environmental Due Diligence, Abidjan, Côte d'Ivoire
Environmental Scientist
2017 – 2017
A client in the transportation sector was undertaking a feasibility study at their proposed site, which included site and infrastructure inspections, interviews, compliance review, reporting, document reviews and mapping

Confidential Client, Phase I Environmental Due Diligence, Gauteng, South Africa
2024 – 2024

An EDD was conducted with a comprehensive approach, aiming to identify any 'Red Flags' associated with potential soil, water, and air contamination liabilities. This was in direct support of the Client's intention to occupy the site. The EDD was carried out per the methodology specified in ASTM Standard E1527-13.

Confidential Client, Environmental Site Assessment, Gauteng, South Africa
2024 – 2024
An environmental site assessment (ESA) is being conducted on three warehouses currently leased by a South African entity that is evaluating the potential acquisition of these properties, to identify any environmental risks or liabilities associated with them. The site assessment is being undertaken in terms of South African legislation.

Confidential Client, Phase I Environment & Infrastructure Assessments, Itori and Jebba, Nigeria
Environmental scientist
2017 – 2017
The client in the transportation sector was undertaking a feasibility study at their proposed site, which included site and infrastructure inspections, interviews, compliance review, reporting, document reviews and mapping.

Confidential Client, Environmental and Social Due Diligence (ESDD) for a Photovoltaic Solar Energy Facility Near Theunissen, Free State Province, South Africa
Environmental Scientist and Lead
2023 – current
EAP
WSP was appointed to undertake an ESDD for a proposed Solar Power Plant Project. This report is intended to advise the Lenders on the proposed Solar Photovoltaic (PV) facility and associated powerline (the asset) regarding environmental and social matters to support the Lenders' decision.

Confidential Client, Phase I Environmental, Health and Safety Due Diligence Assessment (EHS DDA) for an industrial site in Benoni, Gauteng Province, South Africa
Lead Auditor
2023 – 2023
Phase I EHS DDA is to assess the relevant environmental and health & safety aspects and potential liabilities associated with the current and historical use of the sites and their surrounding area.

Environmental Assessment Practitioners Association of South Africa

Registration No. 2019/1731

Herewith certifies that

PHINDILE MASHAU

is registered as an

Environmental Assessment Practitioner

Registered in accordance with the prescribed criteria of Regulation 15. (1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Effective: 01 April 2026

Expires: 31 March 2027

Chairperson

Registrar

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Phindile Loveleni Nadine Mashau

Registration Number: 115915

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following field(s) of practice (Schedule 1 of the Act)

Environmental Science (Professional Natural Scientist)

Effective **29 March 2017** Expires **31 March 2027**

President of Council

Chief Executive Officer

To verify this certificate scan this code

Appendix C

SPECIALIST'S DECLARATION

forestry, fisheries & the environment
Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X447, Pretoria, 0001, Environment House, 473 Steve Biko Road, Pretoria, 0002 Tel: +27 12 399 9000, Fax: +27 86 625 1042

SPECIALIST DECLARATION FORM – AUGUST 2023

Specialist Declaration form for assessments undertaken for application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

REPORT TITLE
PROPOSED THARISA MINERALS (PTY) LTD BATTERY ENERGY STORAGE SYSTEM (BESS) DEVELOPMENT PROJECT

.
Kindly note the following:

1. This form must always be used for assessment that are in support of applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting, where this Department is the Competent Authority.
2. This form is current as of August 2023. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.dffe.gov.za/documents/forms.
3. An electronic copy of the signed declaration form must be appended to all Draft and Final Reports submitted to the department for consideration.
4. The specialist must be aware of and comply with '*the Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the act, when applying for environmental authorisation - GN 320/2020)'*, where applicable.

1. SPECIALIST INFORMATION

Title of Specialist Assessment	Civil Aviation Compliance Statement
Specialist Company Name	WSP Group (Pty) Ltd
Specialist Name	Phindile Mashau
Specialist Identity Number	
Specialist Qualifications:	BSc. Honours (Environmental Management)
Professional affiliation/registration:	EAPASA – 2019/1731, SACNASP – 115915
Physical address:	Building 1, Maxwell Office Park, Magwa Crescent West
Postal address:	Same as physical
Postal address	
Telephone	(011) 300 6046
Cell phone	
E-mail	phindile.mashau@wsp.com

2. DECLARATION BY THE SPECIALIST

I, Phindile Mashau declare that –

- I act as the independent specialist in this application;
- I am aware of the procedures and requirements for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act (NEMA), 1998, as amended, when applying for environmental authorisation which were promulgated in Government Notice No. 320 of 20 March 2020 (i.e. "the Protocols") and in Government Notice No. 1150 of 30 October 2020.
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing –
    - any decision to be taken with respect to the application by the competent authority; and;
    - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- All the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 48 and is punishable in terms of section 24F of the NEMA Act.

Signature of the Specialist

WSP Group Africa (Pty) Ltd

Name of Company:

23 June 2026

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, Phindile Mashau, swear under oath / affirm that all the information submitted or to be submitted for the purposes of this application is true and correct.

Signature of the Specialist

WSP Group Africa (Pty) Ltd

Name of Company

23 June 2026

Date

Tracy Skinner
Commissioner of Oaths
Ex-Officio Professional GIS Practitioner (PGP 1356)
Magwa Crescent West, Waterfall City
Midrand

Signature of the Commissioner of Oaths

23 June 2026

Date

Building 1, Maxwell Office Park
Magwa Crescent West, Waterfall City
Midrand, 1685
South Africa

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