



OLIFANTS MANAGEMENT MODEL PROGRAMME BULK RAW WATER STUDY PHASE

Phase 2F, Civil Aviation

ABSTRACT

For this application, the Lebalelo Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), seeks authorisation for the approximately 3.35 km (~3,350 m) pipeline realignment, as well as the required access and internal roads necessary for the construction and operation of the entire Phase 2F alignment.

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1. Executive Summary

This report presents an impact assessment framework tailored to the Civil Aviation protocol for Phase 2F of the Olifants Management Model Programme's Bulk Raw Water Study Phase (OMMP-BRWSP).

Phase 2F comprises approximately 60 km of pipeline intended to convey water to the Olifantspoort Water Treatment Works (WTW), thereby augmenting the water supply to Polokwane and surrounding rural areas. For this application, the Lebalelo Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), seeks authorisation for the approximately 3.35 km (~3,350 m) pipeline realignment, as well as the required access and internal roads necessary for the construction and operation of the entire Phase 2F alignment.

The objective of this assessment is to identify and analyse potential environmental and socio-economic impacts on Civil Aviation activities during the construction, operational, and decommissioning phases. Findings show High and Medium sensitivities to Civil Aviation, with three noted sensitivities:

- 1) High-sensitivity site, within 8 km of other civil aviation aerodrome,
- 2) High sensitivity, dangerous and restricted airspace, and
- 3) Medium sensitivity due to other civil aviation aerodrome within 8 – 15 km.

The Winterveldt Airstrip's occasional mining-related flights present minor interaction potential, and restricted airspace boundaries result in negligible impact on aviation operations. The airstrip is also situated at least 25 km from the phase 2F development.

An impact analysis, applying intensity, duration, and extent criteria, shows negligible risk, with no significant impacts to airstrips or restricted airspace. In accordance with

Government Notice (GN) No. 320 (dd 20 March 2020) a Compliance Statement will be issued.

In conclusion, this report finds minor civil aviation impacts associated with Phase 2F, but affirms its low-risk profile due to restricted project height, strategic alignment, and its location, well removed from Civil Aviation infrastructure.

2. Introduction

2.1 Project Title

The Olifants Management Model Programme Bulk Raw Water Study Phase (OMMP-BRWSP): Proposed phase 2F pipeline re-alignment and associated infrastructure, in the Greater Sekhukhune District Municipality, in one of its local municipalities, the Greater Tubatse Local Municipality, in the Limpopo Province

2.2 Project Description

The Lebalelo Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), seeks authorisation for the approximately 3.35 km (~3,350 m) pipeline realignment, as well as the required access and internal roads necessary for the construction and operation of the entire Phase 2F alignment.

2.3 Project Overview

2.3.1 Summary of the OMMP-BRWSP

The LWUA appointed the Zutari Ndodana Joint Venture (ZNJV) to provide professional services for the OMMP-BRWSP, previously referred to as the Olifants River Water Resources Development Project (ORWRDP-2).

2.3.2 Background

ORWRDP-2, a project by the DWS, was approved in 2006 following an Environmental Impact Assessment (EIA) process and a revised Record of Decision (RRoD). The Lebalelo Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), seeks authorisation for the approximately 3.35 km (~3,350 m) pipeline

realignment, as well as the required access and internal roads necessary for the construction and operation of the entire Phase 2F alignment.

2.3.3 Key phases of ORWRDP-2

- Phase 2A: De Hoop Dam construction.
- Phase 2B: Flag Boshielo Dam to Pruissen pipeline (72 km).
- Phase 2B+: Pipeline extensions to Sekuruwe WTW and other off takes.
- Phase 2C-F: Pipelines connecting various points, including Steelpoort, Mooihoek, and Olifantspoort.
- Phase 2G-I: Additional pipeline infrastructure and changes to the Lebalele Network.

ORWRDP-2 evolved into the OMMP-BRWSP, with LWUA leading specific phases: Phase 2B, 2B+, 2D2, and 2F.

2.3.4 Strategic Importance

On March 5, 2023, the project was designated a Strategic Integrated Project (SIP 19) under South Africa's Infrastructure Development Act (No. 23 of 2014). This classification mandates prioritizing its planning, approval, and implementation due to its critical economic and social impact on water and sanitation infrastructure. The OMMP-BRWSP aims to meet growing water resource demands while ensuring compliance with environmental and infrastructural development priorities.

2.3.5 General Layout

A general layout of all the project phases and pipeline alignments is shown in Figure 1 below. Phase 2F, is the easterly pipeline alignment indicated by the green line.

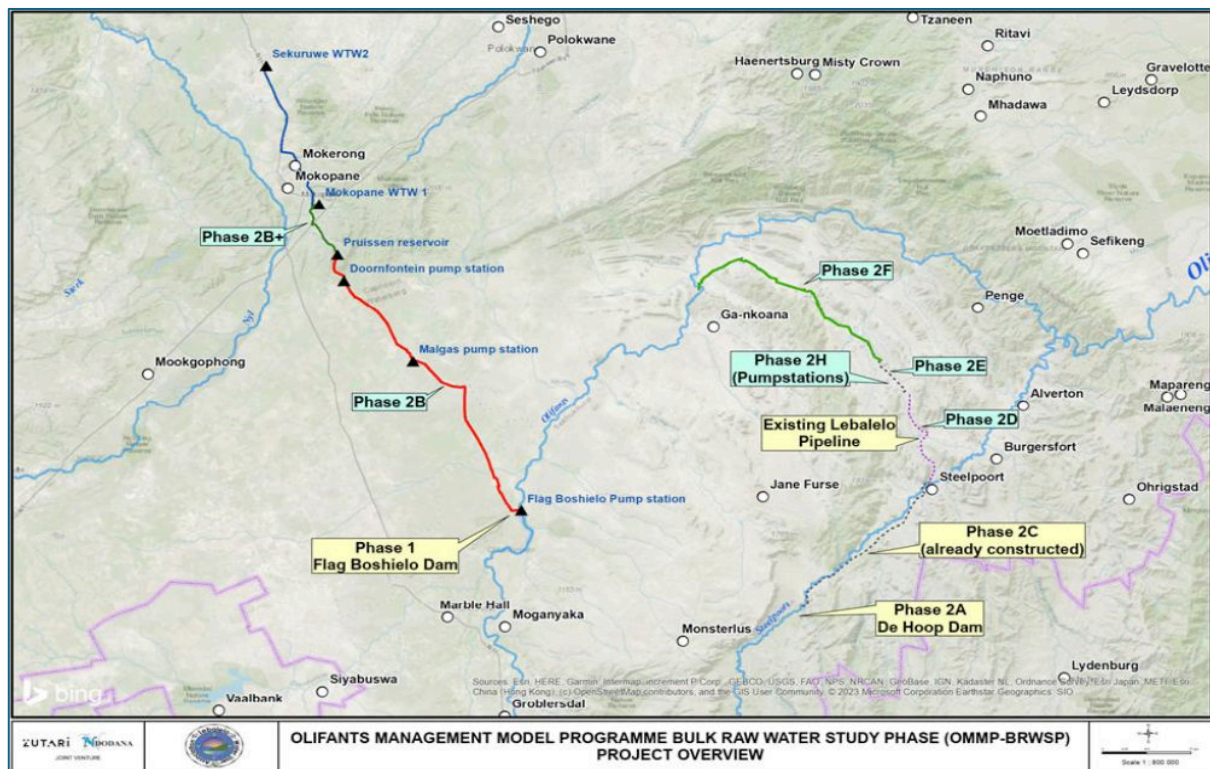


Figure 1: Map indicating the alignment of the different pipelines for the various Phases.

2.4 Summary of Phase 2F

Phase 2F comprises approximately 44 km of pipeline intended to convey water to the Olifantspoort Water Treatment Works (WTW), thereby augmenting the water supply to Polokwane and surrounding rural areas. For this application, the Lebalale Water Use Association (LWUA), on behalf of the Department of Water and Sanitation (DWS), seeks authorisation for the approximately 3.35 km (~3,350 m) pipeline realignment, as well as the required access and internal roads necessary for the construction and operation of the entire Phase 2F alignment.

2.4.1 Key Features

a. Pipeline Specifications

- 1,200 mm diameter for 18.5 km, tapering to 1,000 mm for 25.6 km.
- Follows gravel roads and avoids the R37 for a direct route to Olifantspoort WTW.

b. Biodiversity Considerations

Located within a Critical Biodiversity Area (CBA) and the Sekhukhuneland Centre of Floristic Endemism, known for unique flora and endemic species.

c. Environmental Authorisation (EA)

- Initially obtained in May 2017 (ref: 14/12/16/3/3/1/1626) for Phase 2E and 2F.
- Amended in May 2017 to allow project initiation until May 2, 2027.

d. Height Restriction

All infrastructure, including the pipeline and associated facilities, will not extend more than 10 meters above ground level, ensuring minimal visual and structural impact.

2.4.2 Regulatory Compliance

Construction activities will trigger listed actions under the National Environmental Management Act (NEMA) and require authorisation via a Basic Assessment (BA) process as per the 2014 EIA Regulations. This includes approvals for access and internal roads necessary for Phase 2F.

The project's alignment and activities have undergone public participation and will require continued adherence to environmental and regulatory frameworks.

2.5 Project Area

The project is in the Greater Sekhukhune District Municipality, within the Greater Tubatse Local Municipality, in Limpopo Province. Figure 2 below shows the position of the planned Phase 2F Pipeline in the Limpopo Province.



The map displays the 21st pipeline layout (2018) in purple and the 21st pipeline layout (2023) in green. The map includes a legend with symbols for Havikromt Junction, Kufprentien Balancing Dam, 21st Pipeline Layout (2018), 21st Pipeline Layout (2023), Rivers (Non-perennial and Perennial), and Base Data (Scale Main).

Figure 3: Phase 2 F location and alignment of the previously authorised Phase 2F

3. Methodology

3.1 Specialist Assessment Protocol

The Civil Aviation impact assessment for the Phase 2F of the OMMP – BRWSP will utilise a tailored methodology of the Civil Aviation Protocol (South African Government Gazette (GG) No. 43110, 20 March 2020). The ZNJV Impact Assessment Protocol¹ will be used to modify the Civil Aviation protocol to a fit-for-purpose assessment instrument.

3.2 Impact Identification

3.2.1 Objective

To identify the potential environmental and socio-economic impacts of Civil Aviation activities associated with the OMMP – BRWSP.

3.2.2 Approach

Due to the Very Low significance of pre-mitigation impacts, a full assessment for Civil Aviation is unnecessary. However, to meet regulatory and oversight requirements, we will submit a Compliance Statement. This statement will confirm minimal impact.

3.2.3 DFFE Screening

Figure 4 below shows the high sensitivity for Civil Aviation within the proposed development footprint.

¹ ZNJV – Impact Assessment Methodology, DD 18 October 2024

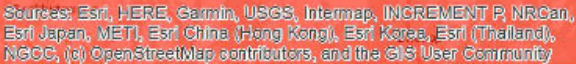


Figure 4: Civil Aviation High Sensitivity

3.2.4 Findings

3.2.4.1 Analysis of Sensitivity Features

The Department of Forestry, Fisheries and the Environment (DFFE) Screening Tool Report for Environmental Authorisation shows three sensitivity features:

- a. **High – Within 8 km of other civil aviation aerodrome.** The Winterveldt Mine Airport (ICAO: FAWT) is the nearest airfield. It is situated 25 km to the south-southeast of the nearest point of the Phase 2F proposed development. Figure 5 below show the position of FAWT in relation to the proposed development. At 25 km from the proposed development site, the sensitivity rating will be low.

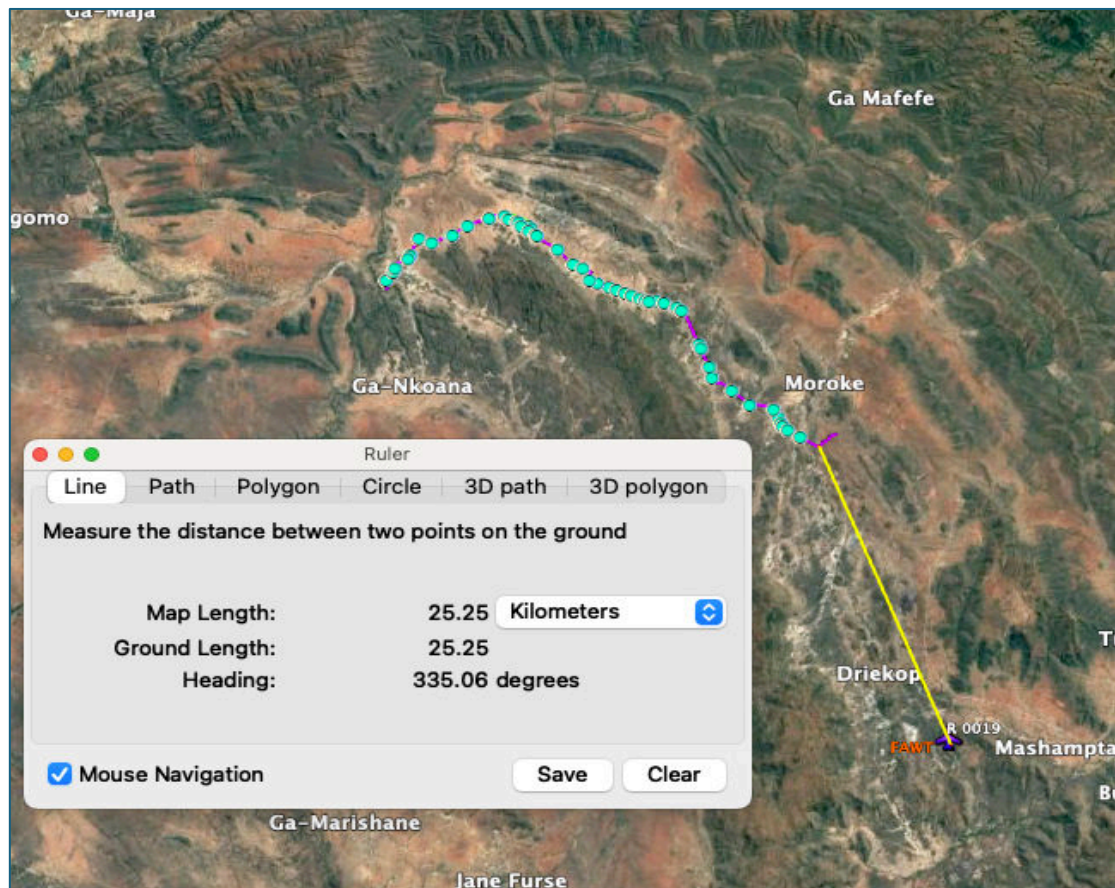


Figure 5: Position of Winterveldt Airstrip

FAWT is designated for daytime operations only and primarily serves the logistical and transport needs of a nearby mine, handling approximately 12 flights per month². The flight activity contributes to the high sensitivity rating in the DFFE Screening Tool Report, as the site's activities could potentially interact with established aviation routes and safety protocols associated with FAWT.

b. High – Dangerous and Restricted Airspace: The proposed development is near restricted airspace.

- (i) **FAR 71:** Restricted Flying Area (FAR) 71: Transvaal Military Middle Flying Area (Upper) Flight Level (FL) 105 - FL195³. FAR 71 is situated above the proposed development area. It extends upwards from around 10 500 feet (~3200 m).

² Source: Airport Managing Authority

³ SA AIP, ENR, DD 15 October 2024

- (ii) **G465:** The G465 Airway is an established aviation route in South Africa, used for air traffic operating across the southern part of the country. It extends over the proposed development area from an altitude of 10500 feet (~3200 m) and above. It is a designated ATS (Air Traffic Service) route, which provides a pre-defined controlled route for aircraft to follow, enhancing the efficiency and safety of en-route flights. Normal International Rules of the Air apply to traffic operating on the G465 Airway.
- (iii) **UG 465:** UG465 is an upper-level ATS route in South Africa, like the G465 airway but specifically designated for air traffic at higher altitudes. UG 465 is positioned immediately above G465. The "U" prefix in UG465 denotes that it is an "upper" (higher) airway, which typically starts at FL245 (24,500 feet / ~7500 m) or higher. This upper airway is used by aircraft flying at cruising altitudes. Normal International Rules of The Air apply to traffic operating on the G465 Airway.

Figure 6 below shows the position of FAR71, G465 and UG465

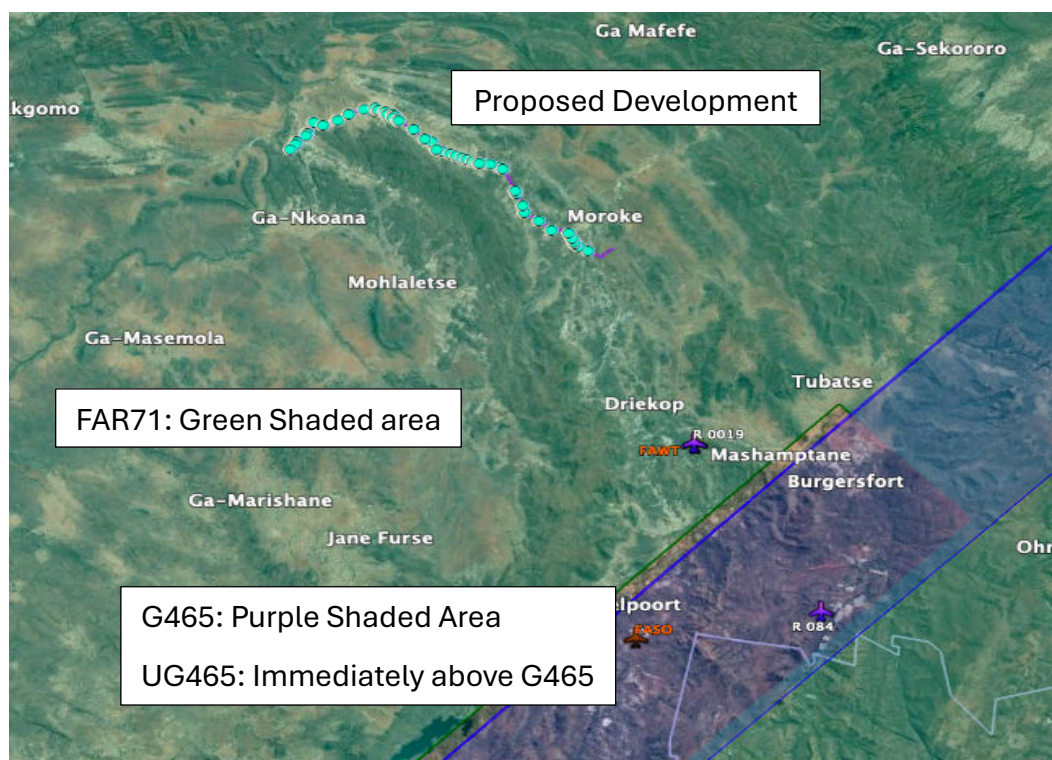


Figure 6: Position of FAR71, G465 and UG465 relative to proposed development

- c. **Medium – Between 8 and 15 km of other civil aviation aerodrome** The Steelpoort Airstrip (ICAO: FASO) is located 47 km from the nearest point of the Phase 2F proposed development, primarily serving the mining industry in the area. It is not a registered airstrip; it is used for occasional charter flights. Figure 6 below shows the position of Steelpoort Airstrip 47 km to the southwest. At 47 km from the proposed development site, the sensitivity rating is low.

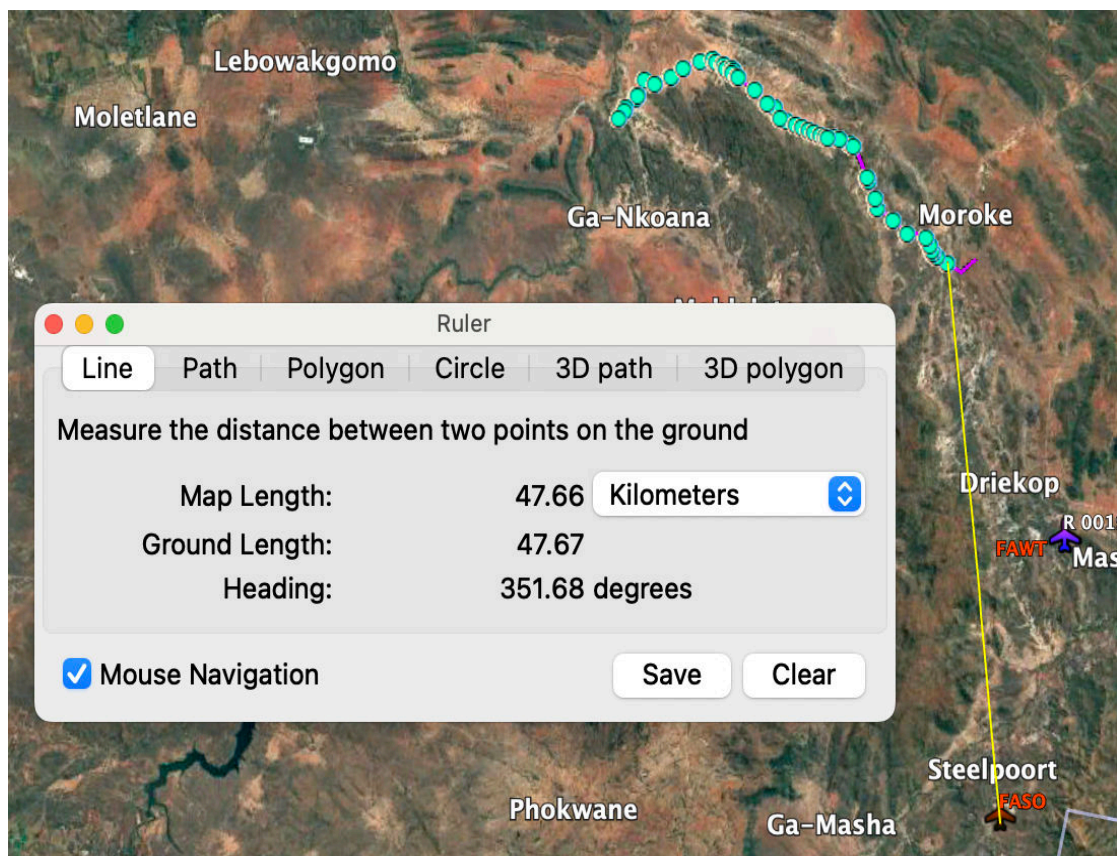


Figure 7: Steelpoort Airstrip

3.2.5 Impact Assessment Summary

Based on the findings, the proposed developments have minimal to no impact on nearby airstrip or airspace operations:

- Winterveldt Airstrip: No impact is anticipated at FAWT as the development is beyond 25 km.
- Restricted Airspace: No impact.
- Steelpoort Airstrip (FASO): No impact on operations at FASO.

Overall, the developments do not affect airstrip operations or require any changes to airspace.

Under the the Civil Aviation Protocol for The Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Civil Aviation Installations, Published in GN No. 320 GG 43110, DD 20 March 2020, only a specialist compliance statement is needed.

4. Compliance Statement

Civil Aviation Compliance Statement for OMMP-BRWSP Phase 2F

This Compliance Statement is based on the requirements outlined in the **Civil Aviation Protocol for The Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Civil Aviation Installations**, Published in Government Notice No. 320 Government Gazette 43110, DD 20 March 2020.

Project Overview

The compliance statement pertains to the Olifants Management Model Programme bulk raw water study phase proposed Phase 2F.

Compliance Statement Details

Prepared by: Hein Reid

Contact Details: 31 Villa Bianca, 72 Venus Street, Goedeburg, Benoni, 1501

Qualifications and Expertise: With over 40 years of experience in air traffic control, air navigation, surveillance, and communication systems—including 12 years in the defence force—I have developed specialized knowledge in managing high-security environments and sensitive Civil Aviation Airspace and Installations. Over the course of my career, I have held air traffic control (ATC) licenses in every ATC discipline, demonstrating my comprehensive expertise across all areas of air traffic management.

In addition to my technical background, I hold an MBA, which enhances my strategic approach to complex projects involving Civil Aviation and high-sensitivity areas. I have conducted numerous environmental impact assessments, particularly for projects with Civil Aviation implications. My thorough understanding of Civil Aviation protocols and environmental requirements allows me to effectively integrate Civil Aviation considerations into environmental management plans, ensuring that project

developments meet both security and environmental standards while balancing developmental needs with national security priorities.

Independence Statement: I, Hein Reid, confirm that I am independent and have no vested interest in the project.

Civil Aviation Sensitivity Confirmation and Impact Assessment Statement

Based on the National Environmental Screening Tool, a site sensitivity verification conducted through desktop analysis, and other relevant information, the sensitivity of the site is confirmed as High, in accordance with the Civil Aviation Protocol.

I agree with the assigned High sensitivity rating.

The proposed infrastructure will not exceed 10 meters above ground level, and as such, poses no unacceptable impact on civil aviation. An impact assessment confirms that the development will not adversely affect any nearby aviation activities or infrastructure.

Accordingly, this compliance statement verifies that the development adheres to the Civil Aviation Protocol environmental standards. It respects local operational sensitivities and can proceed in a manner that supports regional development while maintaining a Very Low impact on civil aviation installations.

Signature



.....

Hein Reid

Specialist

20 May 2025

.....

Date



forestry, fisheries & the environment

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Forestry, Fisheries and the Environment
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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

Civil Aviation Impact for Olifants Management Model Programme Bulk Water Study Phase 2 F

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 Impact for Olifants Management Model Programme Bulk Water Study Phase 2 F
Specialist Company Name	Parivision
Specialist Name	Hein Reid
Specialist Identity Number	6303205126081
Specialist Qualifications:	MBA
Professional affiliation/registration:	Nil
Physical address:	31 Villa Bianca, 72 Venus Street, Goedeburg, Benoni, 1501
Postal address:	As above
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Telephone	0716408463
Cell phone	0716408463
E-mail	Hein.reid@gmail.com

SPECIALIST DECLARATION FORM – AUGUST 2023

2. DECLARATION BY THE SPECIALIST

I, Hein Reid 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

Parivision

Name of Company:

15 Nov 2024

Date

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, _ Hein Reid_____, 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

Parivision

Name of Company

15 November 2024

Date

Click or tap here to enter text.

Signature of the Commissioner of Oaths

Click or tap to enter a date.

Date