



DEFENCE SITE SENSITIVITY VERIFICATION

*BASIC ASSESSMENT AND SCREENING
REPORT FOR ENVIRONMENTAL
AUTHORIZATION FOR THE PROPOSED
SERUKUWE WATER TREATMENT SERVICES*

ABSTRACT

The Defence Site Sensitivity Verification process is Environmental Theme number five in the six themes-process for the project to determine site environmental sensitivity. The prescribed Desk-Top Analysis, followed by a Gathering of Relevant Data, process was followed.

Hein Reid

REPORT ON THE SPECIALIST ASSESSMENT AND REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON DEFENCE INSTALLATIONS AT SEKURUWE

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1. Executive Summary

The following executive summary outlines the key findings and conclusions of the Defence Site Sensitivity Verification Report conducted for the Sekuruwe Water Treatment Project. This verification process is in compliance with the guidelines set forth in Government Notice No. 320, Government Gazette 43110, dated 20th March 2020.

Background

The Sekuruwe Water Treatment Project is a pivotal initiative aimed at addressing water challenges in the Sekuruwe region of the Limpopo Province, South Africa. This project focuses on providing access to water services while adhering to stringent environmental regulations. This report specifically addresses the Defence Site Sensitivity Verification conducted for the Sekuruwe Water Treatment Project.

Methodology

The Defence Site Sensitivity Verification process, designated as Environmental Theme Five, follows the guidelines outlined in Government Notice No. 320, Government Gazette 43110, dated 20th March 2020. It includes a Desk-Top Analysis followed by the Gathering of Relevant Data.

Scope

The assessment for the Sekuruwe Water Treatment Project encompasses a comprehensive Defence Theme Impact Assessment, evaluating two distinct options. The primary focus is on the Preferred Site, denoted as Sekuruwe Site, which is examined for suitability and potential impacts. Additionally, the assessment explores the No Go alternative, examining the implications of not pursuing the project. This comprehensive evaluation aims to provide critical insights and recommendations for decision-makers.

and stakeholders in the Sekuruwe region regarding the defence theme project.

Findings

The Defence Site Sensitivity Verification process yielded the following key findings:

- a. **Confirmation of Land Use and Sensitivity:** The desk-top analysis confirmed the environmental sensitivity of the Sekuruwe Site, consistent with the national screening tool's previous identification. No Defence Installation or Facility is adversely impacted.
- b. **No Disputes Detected:** The verification process did not uncover any disputes regarding the site's current land use or environmental sensitivity as identified by the screening tool.

Conclusion

Based on the comprehensive Defence Site Sensitivity Verification process, the Sekuruwe Site aligns with the environmental sensitivity ratings provided by the national web-based screening tool. This verification ensures the Sekuruwe Water Treatment Project's compliance with regulatory requirements outlined in Government Notice No. 320, GOVERNMENT GAZETTE 43110, published on 20th March 2020.

Recommendation

Considering the findings and conclusions of this Defence Site Sensitivity Verification report, it is recommended that the Sekuruwe Water Treatment Project proceeds at the Sekuruwe Site, alongside the necessary environmental assessments, themes, and reporting.

Endorsement

This executive summary is an integral part of the Defence Site Sensitivity Verification Report for the Sekuruwe Water Treatment Project and is endorsed by the specialist responsible for conducting the verification.

2. Introduction

The Sekuruwe Water Services Project represents a crucial endeavour aimed at fulfilling the water requirements of the Sekuruwe region, located within South Africa's Limpopo Province.

This project followed the Defence Site Sensitivity Verification process in strict accordance with the South African Government Gazette 43110 and GN 320, ensuring full compliance with environmental regulations and sustainability standards.

The scope of the assessment in Sekuruwe is extensive, with a primary focus on a comprehensive defence theme impact assessment. This assessment encompasses the evaluation of two distinct options, each carrying its own set of implications. Firstly, the preferred site (Sekuruwe Site) will undergo a thorough examination to assess its potential impact on the local environment, community, and economy. Secondly, the "No Go" alternative, involving not implementing the defence theme project at all, will be carefully analysed to comprehend the consequences of this decision.

This comprehensive assessment will yield invaluable insights and data to guide decision-makers in determining the most suitable course of action for the Sekuruwe region.

3. Methodology

Site Sensitivity Verification

Prior to initiating the specialist assessment, a Site Sensitivity Verification process was conducted, representing the initial step in safeguarding the defence installations within the Sekuruwe site. This verification process was undertaken by a specialist with radar expertise, and the outcomes of this Site Sensitivity Verification are meticulously documented within a comprehensive report.

The primary objective of this report is to either affirm or challenge the current land usage and environmental sensitivity as initially identified by the screening tool. It includes a well-structured rationale supported by evidence, addressing any alterations in land use or environmental sensitivity. This report forms an integral part of the overarching Environmental Impact Assessment (EIA) and will be submitted in conjunction with the relevant assessment report, all in strict accordance with the Environmental Impact Assessment Regulations.

The Site Sensitivity Verification Process and the resulting Report were formulated following the methodology outlined below:

- Utilization of existing spatial databases to ascertain the precise location of defence installations concerning the proposed project area, and identification of preliminary areas of concern pertaining to potential impacts on defence installations.
- Plotting the proposed project site onto the Screening Tool to establish the allocated sensitivity.
- Conducting additional research to substantiate and augment the Site Sensitivity Verification process.
- Compilation of the Site Sensitivity Verification Report (i.e., this report).

The information sources listed in Table 1 below have been extensively utilized throughout the Site Sensitivity Verification process.

Information	Source	Date	Type	Description
National Web-Based Environmental Screening Tool	Department of Environment, Forestry and Fisheries	2020	Online Assessment	The National Web based Environmental Screening Tool is a geographically based web-enabled application which allows a proponent intending to submit an application for environmental authorisation in terms of the Environmental Impact Assessment (EIA) Regulations 2014, as amended to screen their proposed site for any environmental sensitivity ¹ .
RSA Airspaces in 3D	Air Traffic and Navigation Services SOC Limited (ATNS)	2022	Google Earth .kmz file	The RSA Airspaces in 3D data KMZ file is an initiative undertaken by the ATNS to illustrate the definitions and complexities of airspace, routes, aerodromes and navigational facilities within South Africa to the public in the interest of safety ² .

Table 1: Site Sensitivity Verification Information Sources

Specialist Assessment

The project's impact on defence installations is assessed based on sensitivity levels identified by the national web-based environmental screening tool. The assessment and reporting requirements are detailed below in Table 2:

¹ <https://screening.environment.gov.za/screeningtool/#/pages/welcome>

² <https://atns.com/products-services/aim/aeronautical-information-managementrsa-airspaces-in-3d/7423/>

Sensitivity Rating	Description	Defence Compliance Statement
VERY HIGH	This rating indicates a high likelihood of negative impacts on defence installations. In-depth assessment and mitigation measures are likely required.	Required
HIGH	This rating signifies the potential for negative impacts that can be potentially mitigated. Further assessment may be needed.	Required
MEDIUM	This rating suggests a low potential for negative impacts, and if impacts occur, there is a high likelihood of mitigation.	Required
LOW	In low sensitivity areas, no negative impacts on defence installations are expected, and further assessment and mitigation measures are unlikely.	Not Required

Table 2: Site Identification Criteria

Compliance Statement

The compliance statement is prepared by the specialist with radar expertise and includes:

- Contact details and qualifications of the practitioner or specialist.
- A map displaying the development footprint and its overlay on the defence sensitivity map.
- A comment from the Department of Defence confirming or rejecting the proposed development's impact on military areas of interest is on request.
- If further assessment is required, the compliance statement incorporates the assessment report and mitigation measures in accordance with Department of Defence stipulations.

Site Description

This assessment involves the evaluation of two unique options, each with its own set of consequences.

- a. Firstly the preferred site will undergo a comprehensive examination to assess its potential effects on the local environment, community, and economy.
- b. Secondly, the "No Go" alternative, entailing the complete abandonment of the defence theme project, will be rigorously analysed to gain a thorough understanding of the repercussions associated with this choice.

The Site Description section includes a detailed description of the site's physical characteristics. The property to be assessed is described in Table 3 below.

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type
1	BLINKWATER	820	0	23°56'59.31S	28°56'26.15E	Farm
2	BLINKWATER	820	0	23°56'59.31S	28°56'26.15E	Farm Portion

Table 3: Property Details

4. Defence Site Sensitivity Verification Results

This section will present a summary of the findings of the site sensitivity assessment for the Defence theme as sourced from the Department of Environmental Affairs Screening Tool.

Preferred Site

Figure 1 below shows the assessed area.

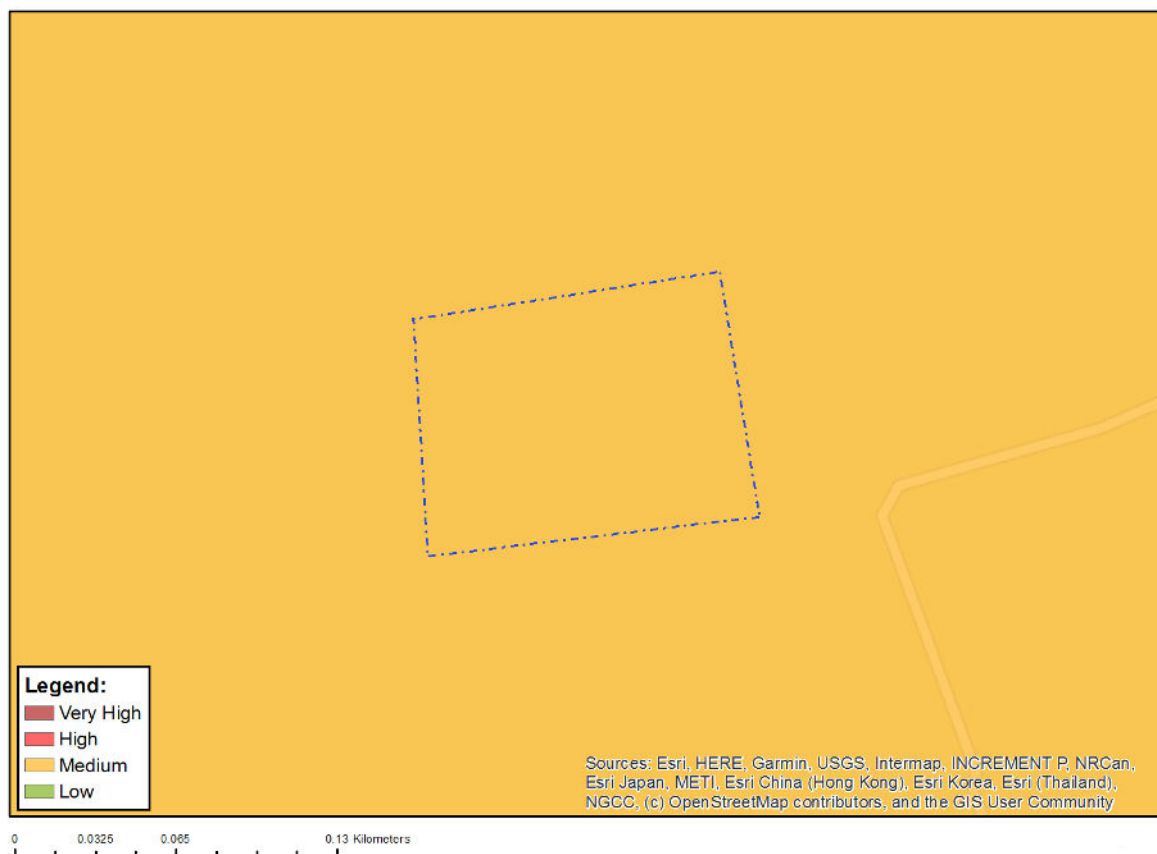


Figure 1: Screening Tool Map Assessed Area for the proposed site

Summary of assessment of Site

Table 4 shows a summary of the assessment for the Site.

Findings	The local habitat in this region falls under the Savanna Biome, it is characterized by the Makhado Sweet Bushveld (SVcb 20) as classified by Mucina and Rutherford in 2006. This specific vegetation type, Makhado Sweet Bushveld, is predominantly located in the Limpopo Province. It can be observed on the plains situated between the Soutpansberg Mountains to the north and the Waterberg region to the west.
Sensitivity	Medium
Sensitivity Features	Military and Defence site

Table 4: Screening Tool Summary of the site assessment

No Go Option

The "No Go" option, which entails not implementing the project at Sekuruwe, may not be a feasible alternative for several compelling reasons:

- **Water Supply Needs:** The project at Sekuruwe aims to provide essential potable water for both residential and commercial purposes, including mining operations and rural communities. Without this project, the region could face severe water supply shortages, leading to adverse consequences for public health, economic activities, and overall quality of life. The water supply needs of the area are significant, and not implementing the project would leave these needs unaddressed.
- **Economic Impact:** The project contributes to local economic development by supporting mining activities and other industries that rely on a stable water supply. Failing to proceed with the project could result in reduced economic growth and job opportunities in the region, leading to potential socio-economic hardships for the local population.

- **Environmental Considerations:** The "No Go" alternative might not align with environmental conservation efforts. The project likely includes provisions for sustainable water management and environmental protection measures. Not implementing the project could lead to unregulated water usage practices and potential harm to the local ecosystem.
- **Water Security:** Water is a fundamental resource for any community's well-being. The "No Go" option would leave the area vulnerable to water scarcity, especially during periods of drought or increased demand. This lack of water security could pose significant risks to the health and safety of the local population.
- **Long-Term Planning:** Infrastructure projects like the one at Sekuruwe are typically part of long-term planning to ensure water availability for growing populations and expanding industries. Cancelling the project could disrupt these plans and lead to inadequate water resources management in the future.

In conclusion, while the "No Go" option may seem like a cost-saving measure or a way to avoid potential environmental impacts, it is likely not a feasible alternative for the Sekuruwe project. The region's water needs, economic considerations, environmental responsibilities, legal obligations, and long-term planning all point to the importance of proceeding with the project to ensure a sustainable and prosperous future for the community.

5. Conclusion and Recommendation

Conclusion: Defence Site Sensitivity

Following a thorough Defence Site Sensitivity Verification process, it has been established that the project site is consistent with the environmental sensitivity ratings generated by the national web-based screening tool. This verification procedure guarantees that the Sekuruwe Water Treatment Project adheres to the regulatory standards specified in Government Notice No. 320, as published in GOVERNMENT GAZETTE 43110 on March 20, 2020.

Recommendation

It is recommended that the proposed site be developed.

6. Endorsement

This Defence Site Sensitivity Verification Report for the Sekuruwe Water Treatment Project and is endorsed by the Radar Specialist as indicated:



29 September 2023

.....
 Hein Reid
 Managing Director

.....
 [Date]

7. Details of the Assessment Practitioner

GN 320 notes that the Site Sensitivity Verification must be undertaken by an Environmental Assessment Practitioner (EAP) or specialist with expertise in radar. This chapter describes the credentials and provides a summary of the air traffic control experience of the expert and how it affords him a deep understanding of radar technology and its application, solidifying the Specialist with Expertise in Radar.

An air traffic controller with more than 40 years of experience, specializing in radar operations, brings a wealth of expertise to their role. A seasoned professional uses their radar knowledge and qualifications to conduct air traffic control responsibilities and environmental impact assessments where radar specialization is required with a focus on the following:

- **Radar Equipment Deployment and Operation:** Having spent decades in the field, the specialist air traffic controller is well-versed in deploying and operating radar equipment. They ensure that radar systems are correctly set up, calibrated, and maintained to provide accurate and reliable data for safety critical air traffic control purposes.
- **Radar Data Interpretation:** With extensive experience, the controller can interpret radar data quickly and accurately. They can identify aircraft positions, altitudes, speeds, headings, and other critical information from radar screens, ensuring the safe separation and management of air traffic.
- **Conflict Resolution:** The specialist air traffic controller excels in identifying potential conflicts or deviations from established flight paths on radar screens. They can take proactive measures to issue clear and timely instructions to pilots to avoid conflicts and ensure safety in the airspace.
- **Weather and Environmental Awareness:** Years of radar expertise enable the controller to recognize weather-related challenges,

including thunderstorms, turbulence, or icing conditions, as well as potential environmental impacts. They can guide aircraft to safer routes or altitudes to avoid adverse weather and minimize environmental impact.

- **Emergency Response:** In critical situations, the air traffic controller uses their radar knowledge to assess the severity of emergencies swiftly, consider alternative courses of action and implement the best solution. They can guide aircraft to the nearest suitable airport and coordinate with relevant authorities, demonstrating their proficiency in crisis management.
- **Coordination and Communication:** Effective radar operation requires seamless communication with pilots, fellow controllers, and other aviation personnel. The specialist controller excels in issuing clear and concise instructions, ensuring that all parties involved understand and follow directives.
- **Traffic Management:** With decades of experience, the air traffic controller efficiently manages air traffic flow, even in congested or complex scenarios. Their radar specialization enables them to make informed decisions to minimize delays and maintain efficient operations.
- **Environmental Impact Assessment:** Leveraging their radar specialization, the controller is well-qualified to conduct environmental impact assessments, particularly when radar expertise is required. They can assess the potential impact of aviation operations on the surrounding environment, including wildlife, noise pollution, and other relevant factors.
- **Compliance with Regulations:** The specialist air traffic controller places a high priority on safety and compliance with aviation regulations and procedures. They stay updated with industry standards and ensure that radar equipment and operations adhere to all relevant guidelines.

- **Mentoring and Knowledge Transfer:** Having accumulated a vast reservoir of knowledge, the experienced controller often serves as a mentor to junior controllers. They pass on their radar expertise, operational insights, and environmental impact assessment skills to the next generation of aviation professionals.

In summary, an air traffic controller with over 40 years of radar specialization brings unparalleled expertise to their role. They excel in deploying radar equipment, using radar-derived information, and applying their knowledge to ensure the safe and efficient flow of air traffic. Additionally, their qualifications make them well-suited for conducting environmental impact assessments in situations where radar expertise is essential to evaluate potential impacts on the defence aspect of the environment.

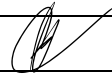
8. APPENDIX A: Radar Specialist Declaration

I, **Hein Reid**, declare that –

- I act as the independent Defence Theme Specialist in support of the environmental assessment practitioner in this site sensitivity verification;
- I have expertise in conducting environmental impact assessments, 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 will perform the work relating to the site sensitivity verification in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulations when preparing the site sensitivity verification and any report relating to the site sensitivity verification;
- I undertake to disclose to the applicant 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 site sensitivity verification by the Competent Authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the Competent Authority, unless access to that information is protected by law, in which case it will be indicated that such information exists and will be provided to the Competent Authority;
- I will perform all obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act.

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;
- ~~- I have a vested interest in the proposed activity proceeding, such vested interest being:~~

Signature of the Defence Radar Specialist	
Name of Company	Parivision
Date	4 September 2023

9. APPENDIX B: Department of Defence Letter of no Objection

On request