AGRICULTURAL COMPLIANCE STATEMENT OF THE PROPOSED CONSTRUCTION AND UPGRADING OF ROADS D5010 AND D5021, INCLUDING ASSOCIATED INFRASTRUCTURES, WITHIN THE LEPELLE-NKUMPI AND FETAKGOMO TUBATSE LOCAL MUNICIPALITIES, CAPRICORN AND SEKHUKHUNE DISTRICTS, LIMPOPO PROVINCE

PREPARED FOR:

RAL ROADS AGENCY LIMPOPO TOGETHER FOR BETTER ROADS
26 Rabe Street Polokwane 0700 Tel: 015 284 4600 Email: info@ral.co.za www.ral.co.za

PREPARED BY:

NALEDZI ENVIRONMENTAL CONSULTANTS
141 Thabo Mbeki Street, Fauna Park, Polokwane, 0699 Tel.: 087 550 1529 Fax: 087 550 1537 E-mail: info@naledzi.co.za website: www.naledzi.co.za

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Predominant land use of the surrounding area	**Residential area and agricultural activities**	
Applicant	Road Agency Limpopo (SOC) Ltd 26 Rabe Street Polokwane 0700 Tel: 015 284 4600 Email: info@ral.co.za www.ral.co.za	
EAP	Quality Environmental Management and Business Solutions cc 7 Munnik Avenue, Sterpark Polokwane, 0700 Limpopo, South Africa	
Prepared for:	Road Agency Limpopo (SOC) Ltd and LEDET – EA Application	
Prepared by:	Naledzi Environmental Consultants 141 Thabo Mbeki St, Fauna Park, Polokwane, 0699 Tel: 087 550 1529 E-mail: info@naledzi.co.za	
Author	Mr. Adivhaho Vhulahani	
Date of Report	06 October 2026	
FINAL DOCUMENT	Prepared by: Mr. Adivhaho Vhulahani	Reviewed by: Prof Khathutshelo Nephawe
Date: **09- 10-2026**	Signature:	Signature:

DECLARATION OF INDEPENDENCE

- I Khathutshelo Nephawe in my capacity as a specialist consultant, hereby declare that I:
- Act/acted as an independent specialist to Naledzi Environmental Consultants (Pty) Ltd for this project.
- Do not have any personal, business, or financial interest in the project except for financial remuneration for specialist investigations completed in a professional capacity as specified by the Environmental Impact Assessment Regulations, 2014, as amended.
- Will not be affected by the outcome of the environmental process, of which this report form's part.
- Do not have any influence over the decisions made by the governing authorities.
- Do not object to or endorse the proposed developments but aim to present facts and my best scientific and professional opinion about the impacts of the development.
- Undertake to disclose to the relevant authorities any information that has or may have the potential to influence its decision or the objectivity of any report, plan, or document required in terms of the Environmental Impact Assessment Regulations, 2014, as amended.



Prof. Khathuthelo Nephawe (Pr.Sci. Nat)

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ACRONYMS AND ABBREVIATIONS

BA – Basic Assessment

BAR – Basic Assessment Report

DMR – Department of Mineral Resources

DWS – Department of Water and Sanitation

EA – Environmental Authorisation

EAP – Environmental Assessment Practitioner

EAPASA – Environmental Assessment Practitioners Association of South Africa

EIA - Environmental Impact Assessment

EMPR – Environmental Management Programme

GIS - Geographic Information System

LEDET – Limpopo Department of Economic Development, Environment and Tourism

NEC – Naledzi Environmental Consultants

NEMA - National Environmental Management Act

1. INTRODUCTION

Naledzi Environmental Consultants (Pty) Ltd was appointed by Quality Environmental Management Business Solutions cc (QEMS) to conduct an Agricultural Compliance Statement as part of the environmental authorisation (EA) process in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), Environmental Impact Assessment (EIA) Regulations, 2014. As per GN960 of 2019, read with Section 24(5)(a) of the NEMA, an Environmental Screening Report (ESR) was generated for the application using the National Web-based Screening Tool. The Compliance Statement is reported according to the protocol for the specialist assessment and minimum report content requirements for the environmental impacts on agricultural resources (GN320 of 2020).

Roads Agency Limpopo (RAL) SOC Ltd proposes the construction and upgrading of Roads D5010 and D5021, including the installation of associated culverts and construction of a bridge across the Olifants River. Both roads are currently gravel roads and are proposed to be upgraded to a bituminous-surfaced road standard to improve road safety, accessibility and connectivity within the surrounding communities. The proposed bridge will have an approximate length of 140 m and a footprint of approximately 1,687 m². The total length of the proposed road works is approximately 3.6 km, comprising approximately 2.2 km for the upgrading of Road D5010 and 1.4 km for the construction of the new section of Road D5021.

1.1 PROJECT LOCALITY

The proposed development involves the construction and upgrading of roads and associated infrastructures. Road D5010 is located within Nkotokwane Village, near Gwara-Gwara Primary School, and traverses Portion 0 of Farm Olifantspoort 479 KS. Road D5021 is located within Nkotokwane and Apel Village and traverses the area between the Eskom Styldrift Substation and Moloke Primary School. The proposed road D5021 is situated across Portion 0 of Farm Olifantspoort 479 KS, Portion 0 of Eerste Recht 502 KS, and Portions 0 and 2 of Mooiplaats 516 KS.

The proposed bridge will cross the Olifants River and will be located across Portion 0 of Farm Olifantspoort 479 KS, Portion 0 of Eerste Recht 502 KS, and Portions 0 and 2 of Mooiplaats 516 KS. The nearest established town to the proposed development is Lebowakgomo, located approximately 35 km southeast of the proposed bridge site.

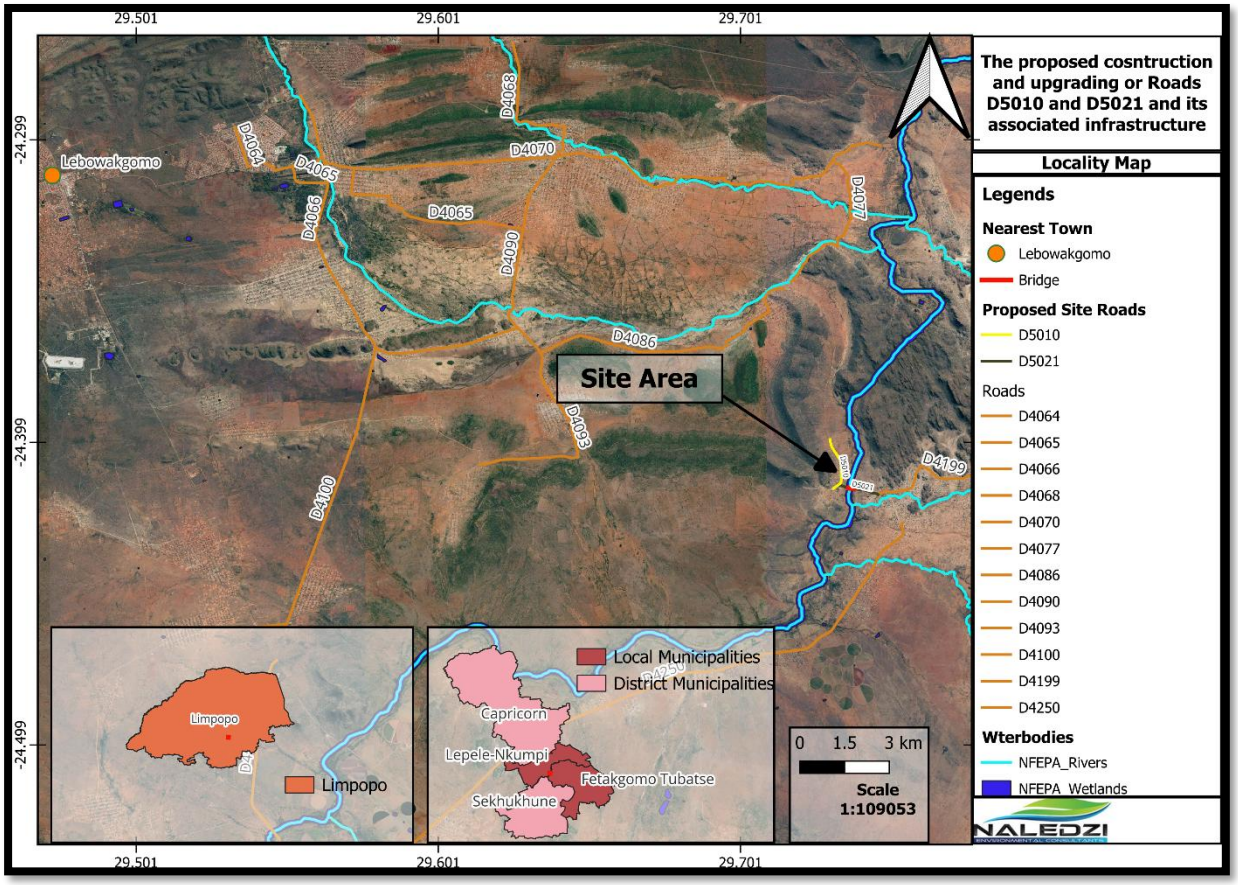


Figure 1: Locality Map

1.2 AIMS AND OBJECTIVES OF THE STUDY

The objective of this assessment is to ensure that the proposed project aligns with the requirements of the Conservation of Agricultural Resources Act (CARA), 1983 (Act No. 43 of 1983) of South Africa. This legislation aims to promote the conservation of soil, water resources, and vegetation while managing weeds and invasive plant species to protect natural agricultural resources.

The study seeks to evaluate the potential impacts of the proposed development on soil quality, land use, land capability, and agricultural potential. Additionally, it aims to identify areas of high sensitivity within the study area to guide sustainable land-use planning.

This will be achieved by assessing key parameters such as soil quality, drainage, topography, climate, and water availability, ensuring that land resources are utilized in a sustainable and responsible manner. As part of this assessment, the specialist report has examined and considered the following:

- Soil forms present within the study area.
- Land capability and agricultural sensitivity associated with the identified soils.
- Evaluation of land capability and sensitivity based on soil conditions, water availability, surrounding developments, and the current status of the land.
- Analysis of potential and actual impacts resulting from the proposed development.

1.3 SUITABILITY OF SOILS FOR AGRICULTURAL CULTIVATION

The assessment of soil suitability for agricultural cultivation primarily focuses on identifying soils that can support productive and sustainable crop growth. For soils to be classified as suitable for cultivation, they must possess the following key characteristics:

- **Adequate Depth**: Soils should have a depth greater than 60 cm to support proper root development for most cultivated crops, ensuring access to essential nutrients and water.
- **Good Soil Structure:** The presence of water-stable aggregates is essential, as they facilitate root penetration, enhance aeration, and improve water retention, all of which are critical for healthy plant growth.
- **Nutrient-Rich Composition:** Soils should contain sufficient amounts of clay and organic matter to supply essential nutrients, promoting strong crop development and long-term soil fertility.

- **Economic Viability:** The study area should have a sufficient distribution of high-quality and high-potential soils to form a viable agricultural management unit, ensuring sustainable and economically feasible crop production.
- **Optimal Clay Content and Water Table Depth:** The soil should have sufficient clay content and a deep enough water table to facilitate effective water storage, ensuring consistent moisture availability for crops.
- **Favourable Climatic Conditions:** Adequate rainfall and sunlight are essential for supporting diverse crop varieties, enhancing agricultural productivity and sustainability.

By meeting these criteria, soils can support productive agricultural activities, contributing to food security and sustainable land use**.**

1.4 APPLICABLE LEGISLATION

Several laws and regulations govern land expansion, development, and agricultural activities in South Africa. These laws ensure sustainable land use, environmental protection, and compliance with agricultural policies. Below are the key legislative frameworks**:**

- National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998)- sets out principles to guide decision-making on activities that affect the environment. These include:
  - Sustainable development: Using natural resources responsibly.
  - Polluter Pays Principle: Those who cause pollution must pay for its cleanup.
  - Precautionary Principle: If an activity is likely to harm the environment, preventative measures should be taken.
  - Equity and Justice: Environmental management must consider the needs of present and future generations.
- Conservation of Agricultural Resources Act (CARA), 1983 (Act No. 43 of 1983)- The primary objectives of CARA are to:
  - Protect and conserve soil, water, and vegetation to ensure sustainable agricultural production.
  - Prevent soil erosion and degradation through proper land management.
  - Regulate and control invasive plant species and weeds that threaten agricultural land.
  - Promote responsible land use planning to maintain the long-term productivity of South Africa's farmland.
  - Ensure that farming methods do not lead to excessive water loss or depletion of natural resources.

- Spatial Planning and Land Use Management Act (SPLUMA), 2013 (Act No. 16 of 2013) The Act aims to:
    - Promote sustainable and efficient land use that balances economic, social, and environmental needs.
    - Ensure that land development and planning are done in an integrated and coordinated manner.
    - Decentralize land-use decision-making by empowering municipalities to handle spatial planning and land use.
    - Address historical land inequalities by ensuring equitable land development opportunities.
    - Provide a framework for municipal planning, ensuring that development aligns with national and provincial strategies.

1.5 TERMS OF REFERENCE

The terms of reference for this study aim to meet the requirements outlined in the Protocol for specialist assessment and minimum report content, as specified for environmental impacts on agricultural resources, which was gazetted on 20 March 2020 in GN 320 under Sections 24(5)(A) and (H) and Section 44 of the National Environmental Management Act (NEMA), 1998.

The study area has been classified by the national web-based environmental screening tool on 04 May 2026 as having high sensitivity for agricultural theme. Due to the linear nature of the proposed development a compliance statement is required.

The terms of reference for an Agricultural Compliance Statement, as stipulated in the protocol, are listed below, and the section number of this report which fulfils each stipulation is given after it in brackets.

1. The Agricultural Compliance Statement must be prepared by a soil scientist or agricultural specialist registered with the South African Council for Natural Scientific Professions (SACNASP) (**Appendix 2**).
2. The compliance statement must:
    a. Be applicable to the preferred site and proposed development footprint (**Figure 1**);

b. Confirm that the site is of "low" or "medium" sensitivity for agriculture (**Page 21**); and

c. Indicate whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site (**Page 20);**

3. The Agricultural Compliance Statement must contain, as a minimum, the following information:

a. Details and relevant experience as well as the SACNASP registration number of the soil scientist or agricultural specialist preparing the statement including a curriculum vitae (**Appendix 1**);

b. A signed statement of independence by the specialist (**Page i);**

c. A map showing the proposed development footprint (including supporting infrastructure) with a 50 m buffered development envelope, overlaid on the agricultural sensitivity map generated by the screening tool **(Figure 2)**;

4. Confirmation from the specialist that all reasonable measures have been taken through micro-siting to avoid or minimize fragmentation and disturbance of agricultural activities **(Page 21)**;

5. A substantiated statement from the soil scientist or agricultural specialist on the acceptability, or not, of the proposed development and a recommendation on the approval, or not of the proposed development **(Page 23)**;

6. Any conditions to which this statement is subjected **(Page 22)**;

7. In the case of a linear activity, confirmation from the agricultural specialist or soil scientist, that in their opinion, based on the mitigation and remedial measures proposed, the land can be returned to the current state within two years of completion of the construction phase **(Page 22);**

8. Where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr **(Page 23)**; and

9. A description of the assumptions made and any uncertainties or gaps in knowledge or data **(Page 7)**.

1.6 ASSUMPTIONS, ASSUMPTIONS UNCERTAINTIES, LIMITATIONS, AND GAPS

The following assumptions, uncertainties, limitations, and gaps were applicable for the soil, land use, and land capability assessment:

- The proposed construction and upgrading of Roads D5010 and D5021, including the proposed bridge, will remain as indicated in the layout design throughout the construction and operational phases.
- Agricultural activities may continue along the road, where practicable, provided that they are maintained at least 10 m from the edge of the road carriageway and do not interfere with road safety, drainage infrastructure, visibility, access, or road maintenance requirements.
- Landowners and farmers will comply with safety regulations and restrictions near the road.
- Erosion control measures will be implemented to prevent soil degradation during and after construction.
- The construction and maintenance of the road will not significantly affect crop yields or livestock health.

2. METHODOLOGY

The assessment of the Study Area's agricultural potential was conducted through a combination of desktop studies to gather general information, site visits for status quo evaluation, soil classification and characterization, as well as the validation of data derived from the desktop studies.

2.1 DESKTOP STUDY AND LITERATURE REVIEW

The literature review and the desktop study were conducted before the field assessment to gather the study area information about its land use, land capacity, geology and soils, vegetation and climate data. The data was collected from SANBI, VEGMAP and DFFE South African National Land Cover, 2022 other through using QGIS and Google Earth Pro.

2.2 SITE SURVEY AND SENSITIVITY VERIFICATION

A desktop assessment was initially conducted, followed by a field investigation to validate the results obtained during the desktop phase. The survey took place on 25 September 2026. The objectives of the on-site Site Sensitivity Verification were to:

- Verify the presence of any cultivation activities and assess the associated agricultural sensitivity;
- Gain insight into the agricultural potential of the study area;
- Confirm or dispute the current land use and environmental sensitivity as indicated by the National Environmental Screening Tool.

2.3 SCREENING TOOL FINDINGS

The agricultural assessment protocol provides the criteria for the assessment and reporting of impacts on agricultural resources for activities requiring environmental authorisation. The assessment requirements of this protocol are associated with a level of environmental sensitivity identified by the national web based environmental screening tool for agricultural resources, which is based on the land capability evaluation values as provided by the Department of Agriculture, Forestry and Fisheries (DFFE). The national web based environmental screening tool via: https://screening.environment.gov.za/screeningtool can be accessed. To meet this objective, the protocol requires that site sensitivity verification be conducted, and subsequent outcomes must meet the following objectives:

- The report must confirm or disputes the current use of the land and environmental sensitivity as identified by the national web based environmental screening tool.
- The report must contain a motivation and evidence (e.g. photographs) of either the verified or different use of the land and environmental sensitivity; and
- The report must indicate whether the proposed development will have an unacceptable impact on the agricultural production capability of the site, and if it does, whether such a negative impact is outweighed by the positive impact of the proposed development on agricultural resources
- The report must be submitted together with the relevant reports prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

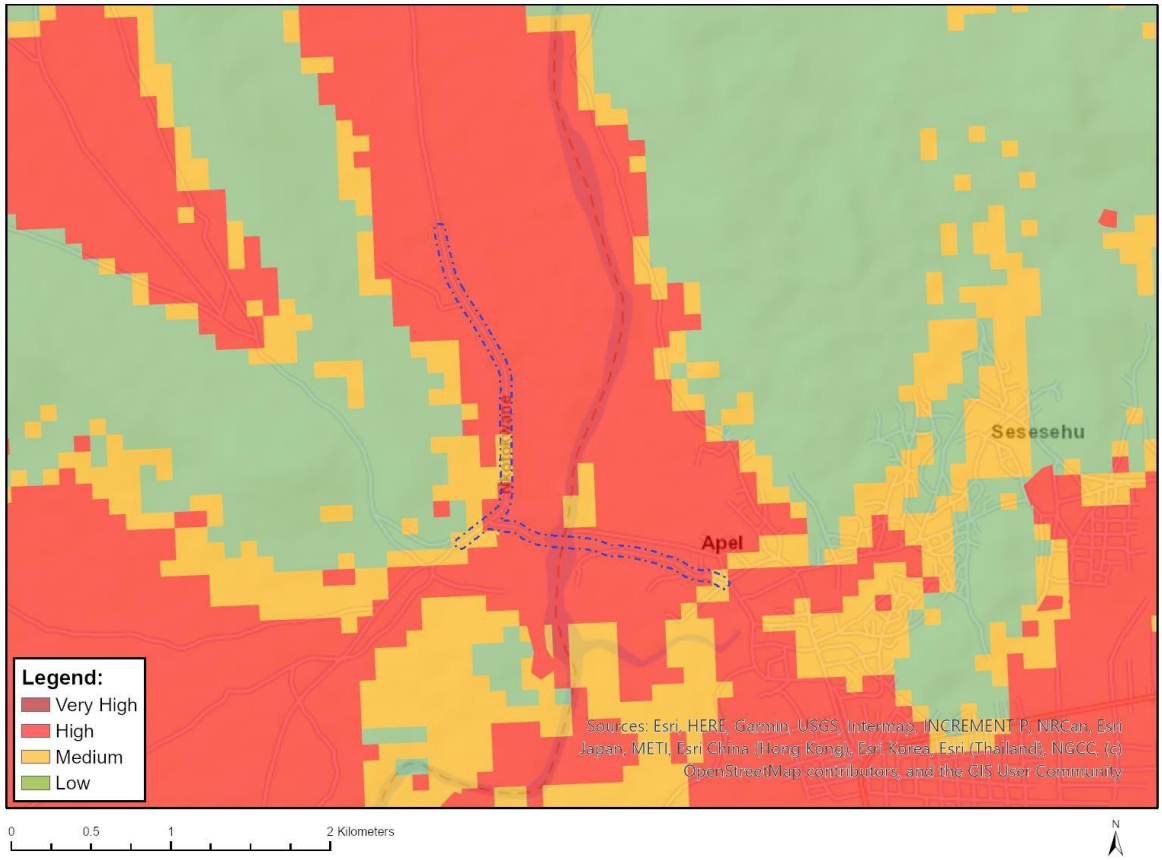


Figure 2: Sensitivity Map for Agriculture Theme

Table 1: Agricultural Theme Sensitivity

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Subsistence_Farming_1
High	08. Moderate
High	09. Moderate-High
Low	05. Low
Medium	06. Low-Moderate
Medium	07. Low-Moderate

3. DESKTOP RESULTS AND DISCUSSIONS

3.1 Vegetation

The proposed site falls within the Sekhukhune Plains Bushveld vegetation type of the Savanna Biome (Figure 3), as described by SANBI (VEGMAP, 2018). This vegetation type is characterised by a semi-arid savanna landscape dominated by a mixture of grassland, scattered trees and shrubs. Common woody species include *Acacia* and *Combretum* species, while the herbaceous layer consists mainly of perennial grasses. The vegetation generally has an open appearance, with trees and shrubs occurring individually or in small groups across the landscape. The vegetation structure and composition are influenced by the relatively dry climate, shallow soils and seasonal rainfall characteristic of the Sekhukhune region.

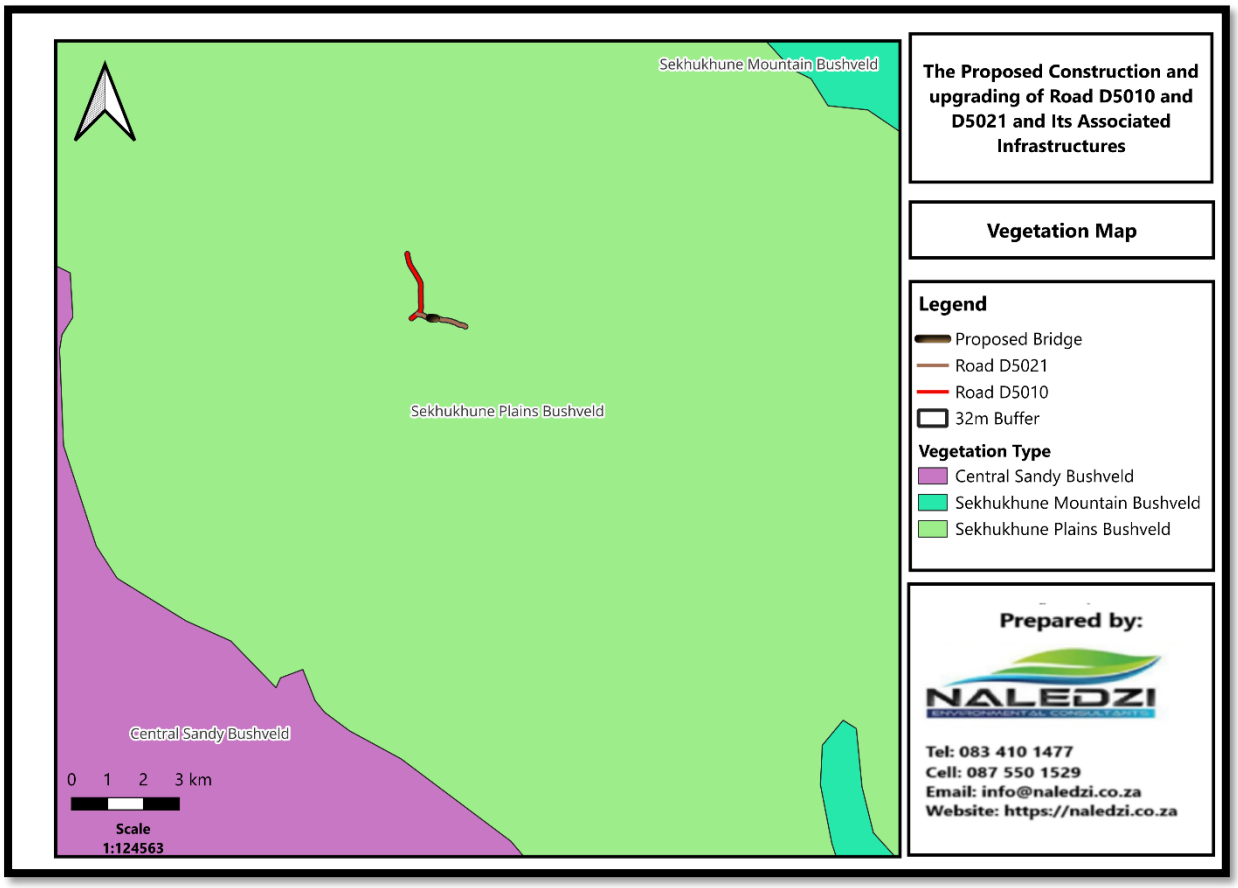


Figure 3: Vegetation Types Map of the Study area



Figure 4: Vegetation within the study area

3.2 Geology and Soils

The proposed site is underlain by three geological units, namely the Magaliesberg Formation, Dsjate Subsuite and Roossenekal Subsuite (Figure 5). The Magaliesberg Formation is the dominant geological unit within the site, while the Dsjate Subsuite and Roossenekal Subsuite also occur across substantial portions of the site. These geological units form part of the Transvaal Supergroup and comprise predominantly sedimentary and metamorphosed sedimentary rocks.

The Magaliesberg Formation is predominantly characterised by quartzite, which is highly resistant to weathering. Soils derived from this formation are generally shallow to moderately deep, coarse-textured and often stony, particularly on elevated areas and slopes. The soils are generally well drained but may have limited water-holding capacity where the soil profile is shallow or contains a high proportion of rock fragments. Deeper soils may occur in lower-lying areas where weathered material and sediments have accumulated. These soils can support grassland and savanna vegetation and are commonly utilised for grazing where suitable.

The Dsjate Subsuite consists predominantly of metamorphosed sedimentary rocks, with weathering of the underlying bedrock producing variable soil conditions. Soils associated with this unit may range from shallow, stony soils on exposed slopes to moderately deep soils in flatter and lower-lying areas. Soil texture and drainage vary according to the degree of weathering, topography and local accumulation of finer materials. The soils are generally moderately to well drained, although localised wetter conditions may occur in depressions or areas with restricted drainage.

The Roossenekal Subsuite is also represented within the site and is associated with metasedimentary lithologies, including quartzitic and shale-rich rocks. Soils developed from these rocks are generally shallow to moderately deep, with variable amounts of gravel and rock fragments. On slopes and exposed areas, the soils may be relatively shallow and susceptible to erosion where vegetation cover is disturbed. In lower-lying areas, deeper and finer-textured soils may develop due to the accumulation of weathered material. Drainage is generally moderate to good, depending on soil depth, texture and landscape position.

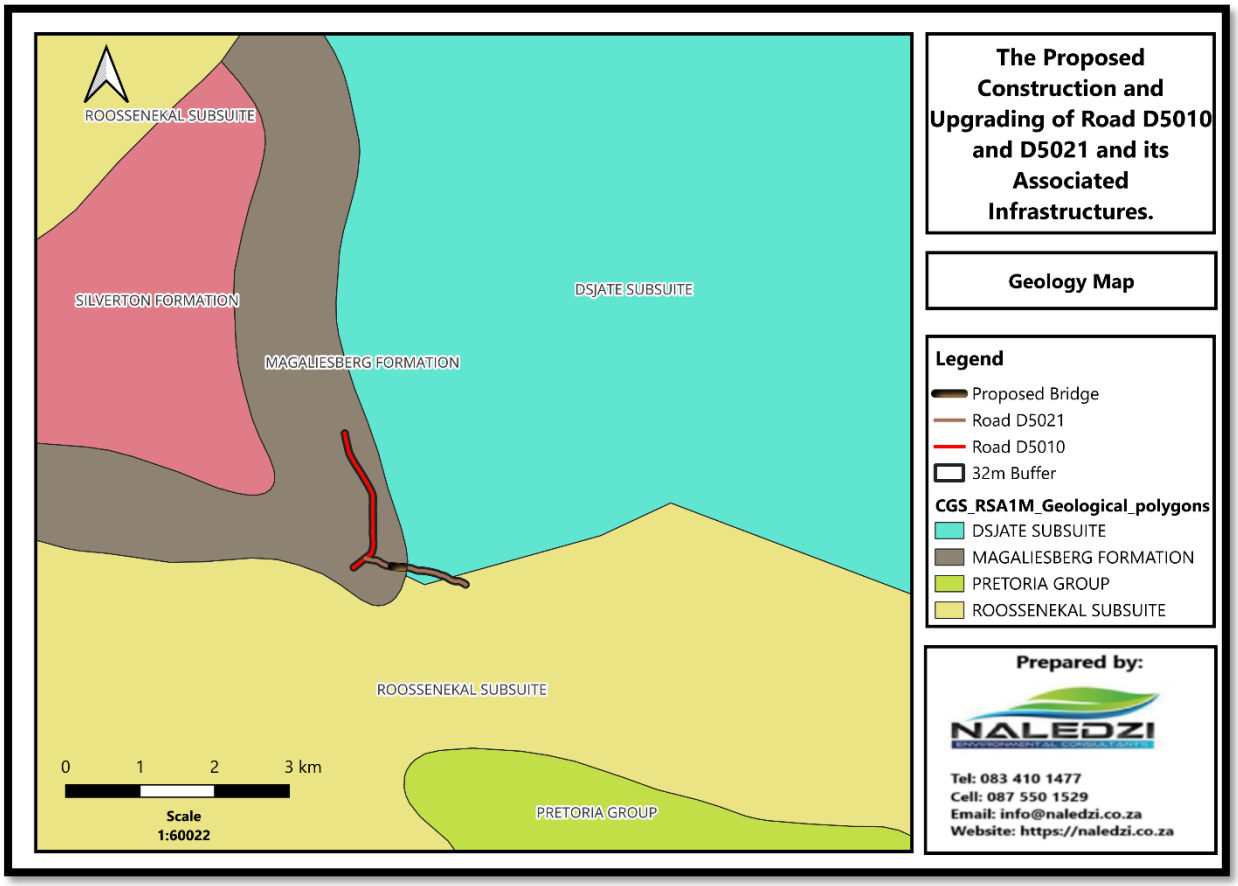


Figure 5: Geological Map of the study area

3.3 Climate

The climate of the site is semi-arid to warm and dry, with hot summers and relatively cool, dry winters. Summer temperatures are highest during March, reaching approximately 31°C, while winter temperatures are lowest around July, averaging approximately 7°C. During the summer months, higher humidity can increase the perceived temperature to approximately 34°C.

Rainfall is generally concentrated during the summer season, with precipitation occurring on approximately 26 days per year and an estimated annual rainfall of about 429 mm. The area experiences predominantly dry conditions during the winter months. Apel also receives substantial sunshine throughout the year, with approximately 207 sunny days annually. These climatic conditions, particularly the warm summers, seasonal rainfall and dry winters, are important considerations for agricultural activities, vegetation patterns and the overall environmental conditions of the study area. (South African Weather Service, 2017)

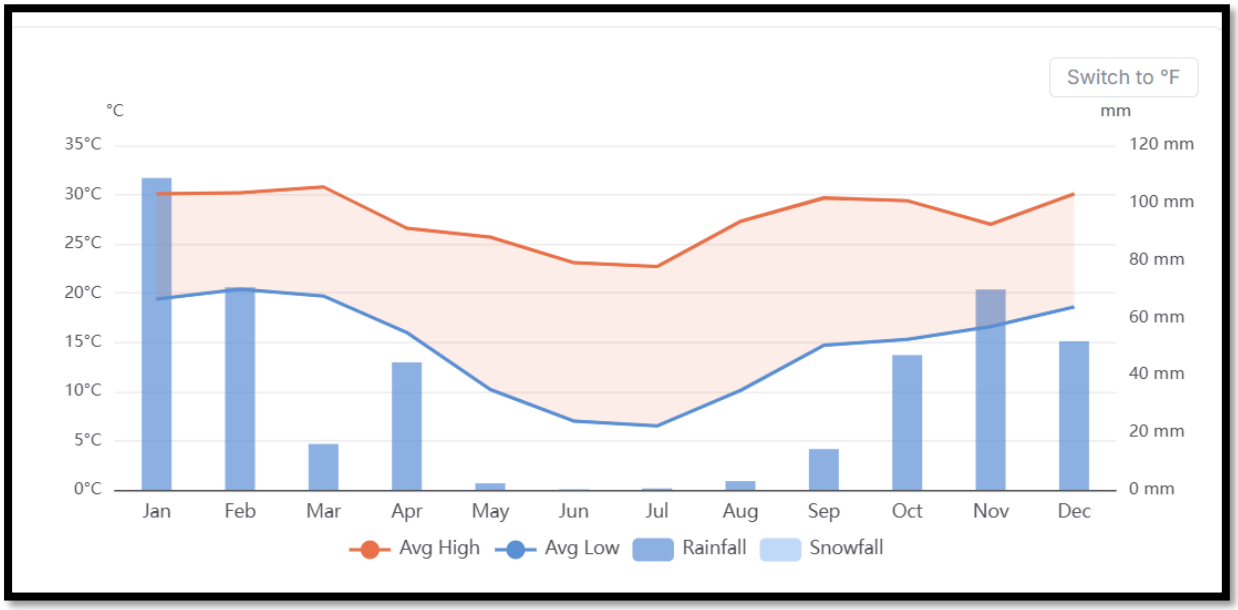


Figure 6: Average temperature by months graph

3.4 Land use

The surrounding land uses comprise residential settlements, agricultural land, the Olifants River, and vacant land primarily used for livestock grazing. Agricultural activities occur within the surrounding areas, while the vacant land provides grazing areas for livestock. The Olifants River forms a prominent natural feature within the landscape and is associated with the surrounding agricultural and grazing activities.

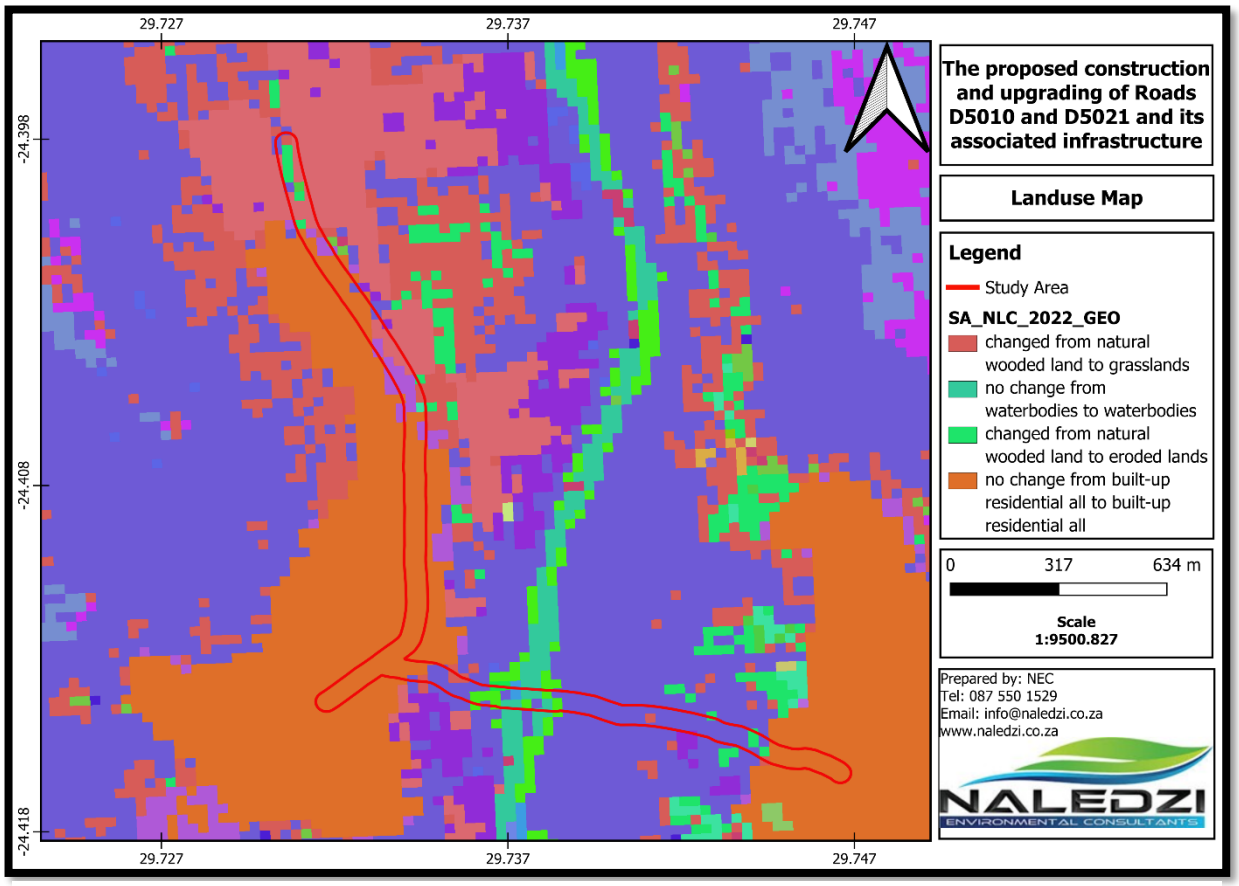


Figure 7: Landuse Map

3.5 Land Capability

The proposed site is predominantly characterised by Land Capability Class IV, with smaller portions classified as Class VI. Land capability indicates the suitability of land for agricultural use while considering limitations that may affect long-term soil productivity.

Class IV land has severe limitations that restrict the range of crops that can be cultivated and require careful management. It may support limited cultivation, grazing and pasture, provided appropriate soil conservation and agricultural management practices are implemented.

Class VI land has severe and generally permanent limitations that make it unsuitable for regular or intensive cultivation. It is therefore more suitable for extensive grazing, natural vegetation, wildlife and conservation, with development and soil disturbance minimised where possible.

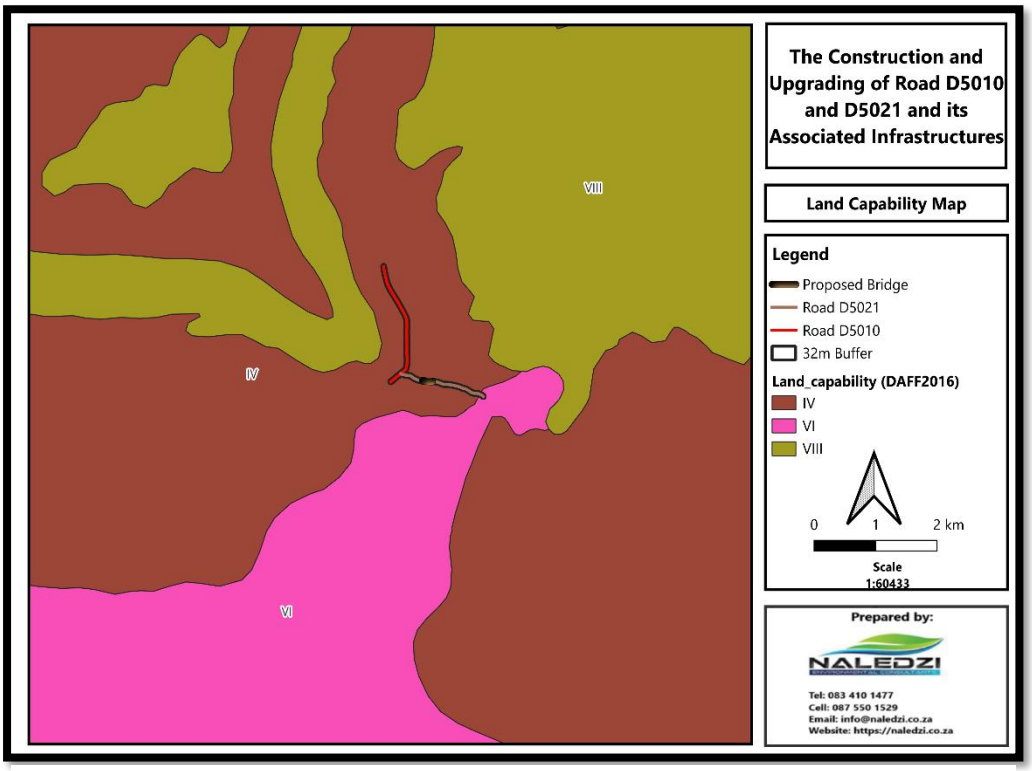


Figure 8: Land Capability Map

3.6 Land Type

The proposed site is predominantly under the Ae339 land type, with smaller portions classified as Fc733. Land types describe areas with relatively uniform patterns of soil, terrain and geological characteristics, which influence agricultural potential, drainage, soil depth and land-use suitability.

The Ae339 land type is generally associated with plinthic and duplex soil patterns, with variations in soil depth, drainage and agricultural potential. These soils may support agricultural activities where conditions are favourable but can have limitations related to water movement, soil structure and erosion.

The Fc733 land type, occurring in smaller portions of the site, is generally associated with plinthic soils and varying terrain conditions. Its agricultural suitability may be limited by factors

such as soil depth, drainage and erosion susceptibility. Appropriate soil and water conservation measures should therefore be considered where agricultural activities or development occur

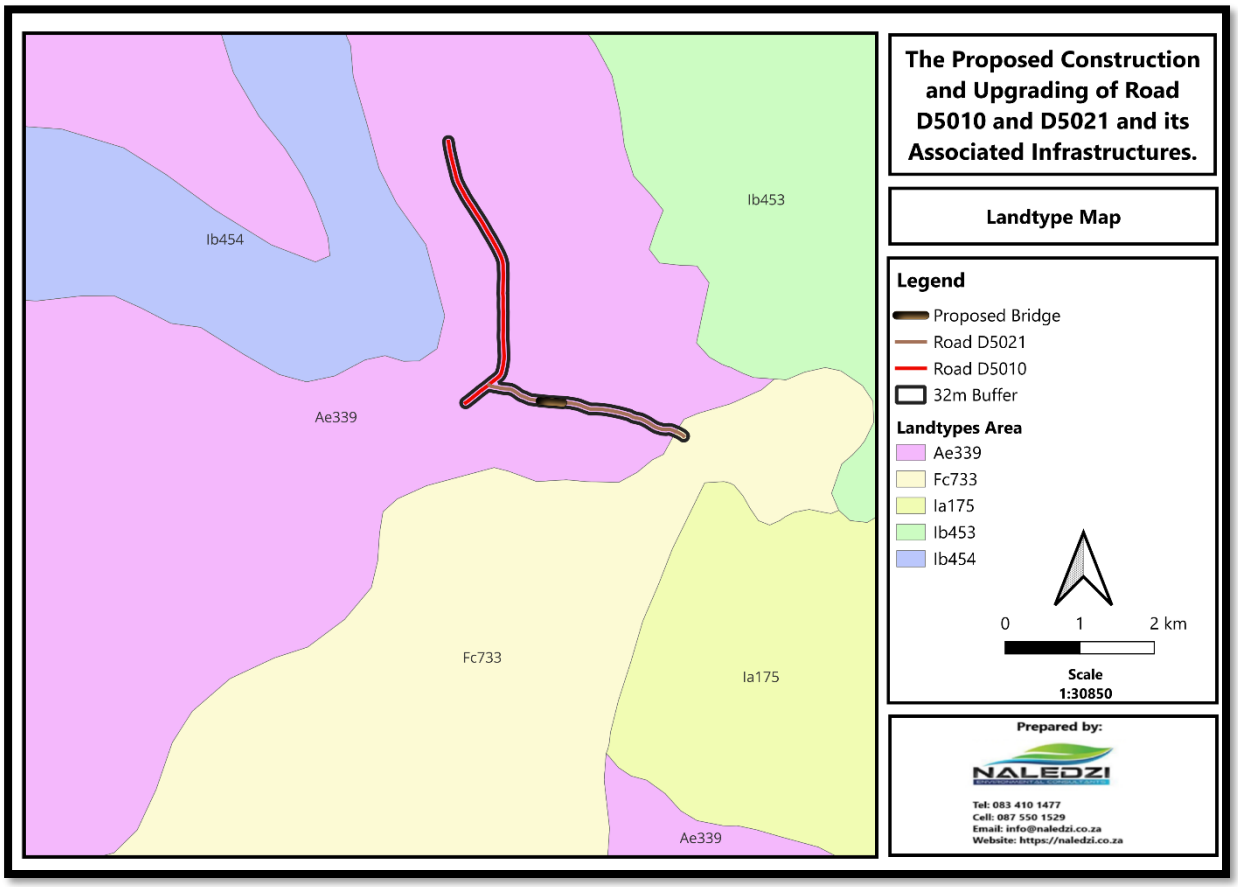


Figure 9: Landtype Map

3.7 Grazing Capacity

The proposed site comprises two grazing capacity classes, namely Class 5 (5 ha/LSU) and Class 11 (11 ha/LSU). Grazing capacity expresses the amount of land required to sustainably support one Large Stock Unit (LSU); therefore, a lower hectares-per-LSU value indicates a higher grazing potential.

Class 5 (5 ha/LSU) represents areas with a relatively higher grazing potential, where approximately 5 hectares are required to support one LSU under appropriate grazing management.

Class 11 (11 ha/LSU) represents areas with a lower grazing potential, requiring approximately 11 hectares to support one LSU. These areas require more conservative stocking rates and

effective grazing management to prevent overgrazing, vegetation degradation and soil erosion.

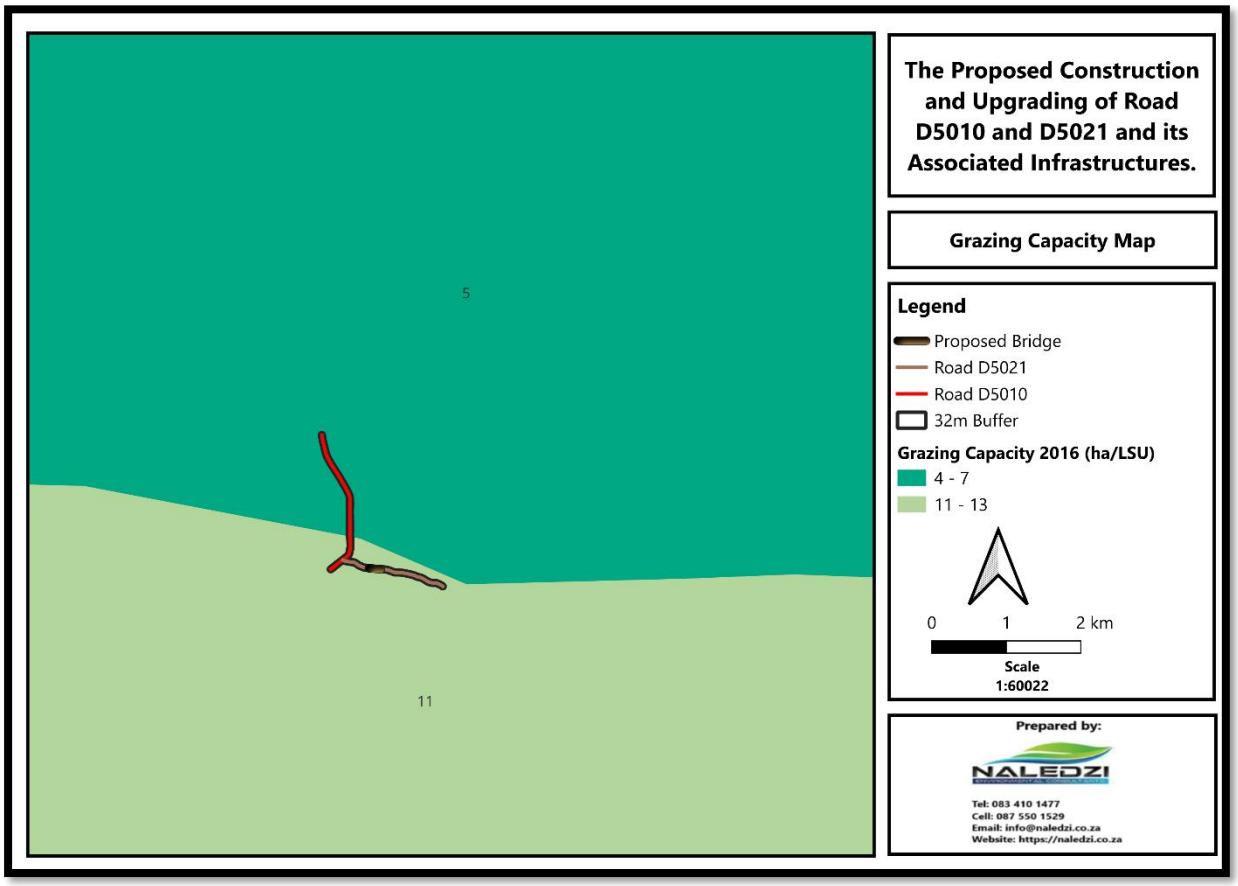


Figure 10: Grazing Capacity

4. FIELD VERIFIED RESULTS AND DISCUSSIONS

4.1 Land uses within and the vicinity of the study area

The project site comprises the road sections proposed for construction and upgrading, including the area where the proposed bridge will be constructed. The surrounding land is predominantly used for livestock grazing, with livestock grazing along the road corridors and in areas surrounding the proposed bridge. Livestock also access the Olifants River for drinking water.

The surrounding area is characterised by small-scale and subsistence agricultural activities, particularly along the D5021 and D5010 roads. Residential areas are also located along these road corridors, resulting in a mixture of agricultural and residential land uses within the broader study area. Other notable land uses and infrastructure in the vicinity include the Eskom Stydkraal Substation, Gwara Gwara Primary School, Moloke Primary School, and a house previously used to accommodate water-pumping infrastructure.



Figure 11: Land uses within and the vicinity of the study area

4.2 Impact Statement and screening tool sensitivity verification

An agricultural impact refers to any change resulting from a development that may affect the long-term productivity, use or sustainability of agricultural land. Such impacts may include the loss or fragmentation of agricultural land, soil compaction, disturbance of soil structure, erosion, reduced grazing availability and interference with farming activities. Infrastructure development can potentially reduce agricultural productivity where productive agricultural land is permanently converted or where construction activities restrict access to grazing areas or cultivated fields.

During the site assessment, it was observed that the D5010 and D5021 are existing roads, with the proposed upgrading largely confined to the existing road corridors. A small section of approximately 0.3 km of the D5021 traverses an area containing an old field that is seasonally cultivated. Old, cultivated fields were also observed along both road corridors, particularly along the D5021 towards Apel Village. Given that the proposed works primarily involve the upgrading of existing roads and the construction of a bridge, the anticipated direct loss of agricultural land is expected to be limited.

The project area comprises Land Capability Classes IV and VI. Class IV has severe limitations for cultivation but can support limited crop production, grazing and pasture under appropriate management. Class VI has more severe and generally permanent limitations, making it unsuitable for regular cultivation and more suitable for extensive grazing, natural vegetation and conservation.The area has grazing capacities of 5 ha/LSU and 11 ha/LSU. 5 ha/LSU indicates relatively higher grazing potential, while 11 ha/LSU indicates lower grazing potential, requiring a larger area to sustainably support one Large Stock Unit. These areas require appropriate grazing management to prevent overgrazing and degradation.

Livestock grazing was observed within the project area and in the vicinity of the Olifants River, where livestock also access the river for drinking water. Construction activities could temporarily disturb grazing and result in localised soil compaction, vegetation disturbance and restricted livestock movement. However, these impacts are expected to be localised and manageable, provided that construction activities remain within the approved road and bridge footprints, access to agricultural land is maintained, and disturbed areas are rehabilitated following construction. Agricultural activities along the surrounding areas can continue without significant interference.

The proposed road upgrading and bridge construction are also expected to provide positive socio-economic and agricultural benefits by improving connectivity between Ntokokwane and Apel Village. The bridge will improve livestock movement across the Olifants River, allowing farmers to access grazing areas on both sides of the river and potentially improve grazing management. Improved road access will also facilitate the transport of agricultural products to nearby towns, mills and markets, thereby supporting local agricultural livelihoods, improving market accessibility and contributing to local food security. Overall, the project is anticipated to have a low negative impact on agricultural resources, with potential long-term positive benefits associated with improved access and agricultural connectivity.

In accordance 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 NEMA, 1998, when applying for environmental authorisation the current use of the land and the environmental sensitivity of the site under consideration as identified by the national web-based environmental screening tool, must be confirmed by undertaking a site sensitivity verification. The outcome of this Agricultural Impact Assessment is to:

- Confirm or dispute the current use of the land and the environmental sensitivity as identified by the screening tool; and
- Motivate and provide evidence of either the verified or different use of the land and environmental sensitivity of the site.

The allocated vs site-verified sensitivities for the agricultural theme are presented in Table 2

Table 2: Summary of the screening tool vs specialist-assigned sensitivities

Study Area	Screening Tool Assigned Sensitivity	Verified Sensitivity
The proposed construction and upgrading of roads D5010 and D5021, including associated infrastructures.	High Sensitivity	Low Sensitivity

4.3 Micro-siting to minimize fragmentation and disturbance of agricultural activities

In accordance with the agricultural assessment protocol, reasonable measures should be implemented to minimise the fragmentation and disturbance of agricultural activities. The proposed road upgrading should strictly follow the existing road alignment and approved project layout, particularly along the approximately 0.3 km section of the D5021 that is located along the edge of an old, seasonally cultivated field. Maintaining the existing alignment will minimise the encroachment into the cultivated area and avoid unnecessary loss of agricultural land.

Construction activities, temporary access routes, laydown areas and other associated infrastructure should remain within the approved road reserve and project footprint and should not extend unnecessarily into the adjacent old field or surrounding grazing areas. The existing road alignment should therefore be maintained throughout construction, with no unnecessary widening or deviation into agricultural land.

The affected section is limited to approximately 0.3 km and is located along the edge of the old cultivated field, adherence to the approved layout is expected to minimise fragmentation and disturbance of agricultural activities. Access for livestock and farmers should also be maintained, particularly around the Olifants River and surrounding grazing areas, throughout the construction period.

4.4 Confirmation of linear activity impact

The protocol requires confirmation, in the case of a linear activity, that the land can be restored to its current condition within two years following completion of construction. It is hereby confirmed that the land temporarily disturbed during the construction and upgrading of the D5010 and D5021 roads and the construction of the bridge can be restored to its current condition within two years following completion of construction and can be returned to its existing level of agricultural production potential within this timeframe.

5. CONCLUSION

Naledzi Environmental Consultants (Pty) Ltd was appointed by QEMS to undertake an Agricultural Compliance Statement as part of the environmental authorisation process for the proposed construction and upgrading of D5021 and D5010 road and its associated infrastructures within the Lepelle-Nkumpi and Fetakgomo Tubatse Local Municipalities, Capricorn and Sekhukhune District Municipalities, Limpopo Province.

The agricultural assessment indicates that the proposed development is not expected to result in significant impacts on agricultural resources or agricultural production potential. The proposed works will primarily follow the existing road alignments, thereby limiting the loss and fragmentation of agricultural land. A small section of approximately 0.3 km of the D5021 runs along the edge of an old, seasonally cultivated field, and the proposed development should remain within the approved road alignment and footprint to avoid unnecessary encroachment into this area. The surrounding land is predominantly utilised for livestock grazing, and grazing activities can continue in areas outside the permanent road and bridge footprints.

The study area comprises Land Capability Classes IV and VI, which have limitations for intensive crop production and are generally more suited to limited cultivation, grazing and other lower-intensity agricultural uses. The grazing capacity ranges from approximately 5 ha/LSU to 11 ha/LSU, indicating varying grazing potential across the study area. Construction activities may result in temporary disturbance, including soil compaction, vegetation disturbance, erosion and temporary restrictions on livestock movement. However, these impacts are expected to be localised and of low significance and can be effectively managed through implementation of the recommended mitigation measures and the relevant provisions of the EMPr.

The proposed road and bridge development is also expected to provide positive agricultural and socio-economic benefits. Improved connectivity between Ntokokwane and Apel Village will facilitate livestock movement across the Olifants River and improve access to grazing areas. Improved road access will further assist farmers in transporting agricultural products to nearby towns, mills and markets, thereby supporting agricultural livelihoods and local food security.

In accordance with the requirements applicable to linear activities, it is confirmed that areas temporarily disturbed during construction can be restored to their current condition within two years following completion of construction and can be returned to their existing level of agricultural production potential within this timeframe. Rehabilitation should be undertaken for all temporarily disturbed areas outside the permanent road and bridge footprint.

From an agricultural impact perspective, the proposed development is therefore considered acceptable and recommended for approval, provided that the proposed mitigation measures are implemented. Particular attention should be given to maintaining the existing road alignment, avoiding unnecessary disturbance of the adjacent old, cultivated field, restricting construction activities to the approved footprint, maintaining access for livestock and farmers, and rehabilitating temporarily disturbed areas following construction.

6. REFERENCE

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APPENDIX 1(CV)

CURRICULUM VITAE

Prof Khathutshelo Nephawe (PhD, MBL, Pr.Sci.Nat.)

Postal Address: 2222 Daniele Estate, 90 Anso Road, Montana, 0182, RSA
ID Number: 7405085980088 | Nationality: South African
Cell Number: +27 71 473 5653 | Email: knephawe@gmail.com

RESUME SUMMARY

Prof Khathutshelo Nephawe holds the following educational qualifications: PhD in Agriculture from University of Nebraska (USA) under the prestigious Fulbright Scholarship, Masters in Business Leadership from UNISA's Graduate School of Business Leadership (SBL), Postgraduate Certificate in Practical Project Management Programme from UNISA - SBL, MSc Agriculture from University of Free State (UFS), BSc in Agriculture (Hons) from UFS, and BSc Agriculture from University of Limpopo.

Prof Nephawe is currently employed by Tshwane University of Technology (TUT) as a Research Professor and Head of Department. Previously he worked as Research Scientific Manager at Limpopo Department of Agriculture and formerly as Senior Researcher at Agricultural Research Council of South Africa (ARC). He is rated by the NRF as an Established Researcher (C3). He has an outstanding postgraduate supervision track record, as well as sustained excellent research outputs. He is registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP).

Prof Nephawe has comprehensive leadership experience at government, industry, research organizations and higher education institutions. He serves as the Chairperson of Council at SACNASP. He also serve(d) on the following Boards / Committee's: Higher Education Qualification Committee (HEQC) of the Council on Higher Education (CHE), R&D Committee Chairperson at Onderstepoort Biological Product Institute (OBP), South African Society for Animal Sciences (SASAS), Limpopo Colleges of Agriculture Advisor Board, Potchefstroom College of Agriculture Advisor Board, professionals in Science, Engineering and Technology (proSET) committee of the National Science Technology Forum (NSTF). Continentally, he previously served in the African Technology and Innovations Incubators Advisory Committee (ATIIAC) of the African Union-InterAfrica Bureau for Animal Resources (AU-IBAR). Additionally, he served at various pools/panels of experts at National Research Foundation (NRF), Water Research Council (WRC), Read Meat Research and Development Trust (RMRDT), etc.

Prof Nephawe's skills and competencies include, but not limited to: Program Design & Evaluation, Curriculum Design, Agriculture & Rural Development; Monitoring, Evaluation & Reporting; Resource Mobilization; Strategic Management & Leadership; Research Technology & Innovation, Project Management; Strategic Planning & Development; Information & Communication Technology; Problem Solving & Conflict Resolution; Mentoring & Supervision; Stakeholder Engagements, Partnerships & Collaborations; Risk Management; Financial Management; Human Capital Development; Change Management; Diversity Management; Policy Analysis & Development; Data Analysis; Local, Provincial & National Government Knowledge; Report Writing and Presentation Skills.

Prof Nephawe has outstanding record of participation and leadership of organizations both at national, regional and international arena. He has substantively advanced the attainment of the National Development Plan 2030 vision, the African Agenda 2063 and the Sustainable Development Goals (SDGs).

EDUCATIONAL BACKGROUND

- **PhD – Agriculture (Animal Breeding and Genetics),** University of Nebraska, USA (2003).
- **Masters of Business Leadership (MBL) degree**, University of South Africa, Graduate School of Business Leadership (2011).
- **Postgraduate certificate in Practical Project Management Programme (PPM),** University of South Africa, Graduate School of Business Leadership (2005).
- **MSc Agriculture - Animal Science,** University of the Free State (1998).
- **BSc Agriculture (Hons) - Animal Science** *(Cum Laude*), University of Free State (1996).
- **BSc Agriculture – Animal Science**, University of Limpopo (1995).

SKILLS & COMPETENCIES

- Outstanding skills and competencies in the following areas: Academic Leadership; Program Design & Evaluation, Curriculum Design; Science, Technology and Innovation; Monitoring, Evaluation and Reporting; Resource Mobilization; Strategic Management and Leadership; Research Technology and Innovation, Project Management; Strategic Planning and Development; Information and Communication Technology; Problem Solving and Conflict Resolution; Mentoring and Supervision; Stakeholder Engagements; Partnerships and Collaborations; Risk Management; Financial Management; Human Capital Development; Change Management; Diversity Management; Policy Analysis and Development; Data Analysis; Local, Provincial and National Government Knowledge; Report Writing and Presentation Skills.
- Moreover, possess expertise and experience in Statistical Designs and Analysis of Business & Scientific Research Data using various specialized software packages such as the Statistical Analyses System (SAS) and Statistical package for Social Sciences (SPSS) software packages, to mention but a few.

WORK EXPERIENCES

- **Tshwane University of Technology (2013 – current)**
  Position: Head of Department & Research Professor

- **Limpopo Department of Agriculture (2006 – 2013)**
  Position: Scientific Manager – Grade B (Livestock Research)

- **Agricultural Research Council (2003 - 2006)**
  Position: Senior Researcher - Animal Breeding & Genetics

- **Agricultural Research Council (1997-1998)**
  Position: Candidate Researcher - Animal Breeding & Genetics

REFERENCES

Prof N Mokgalaka-Fleischmann
Executive Dean – Faculty of Science (TUT)
Cell: 082 712 1146
Email: *mokgalakans@tut.ac.za*

Prof A.N. Maiwashe
General Manager: Agricultural Research Council (ARC)
Cell: 082 561 6772
Email: *norman@arc.agric.za*

Dr N Obokoh
CEO – SACNASP
Tel: 0732426478
Email:
Nompumelelo.Obokoh@sacnasp.org.za

Dr P. Rampersadh
Group Executive: Nuclear Energy Corporation of South Africa (NECSA)
Tel: 083 937 3396 | 082 958 3677
Email: *ramperp@gmail.com*

CURRICULUM VITAE OF ADIVHAHO VHULAHANI

PERSONAL INFORMATION

Nationality: South African

Gender: Male

ID number: 9604216041087

Languages: English, Tshivenda, Sepedi, Xitsonga

Driver's License: Code C1

E-mail: avhulahani@naledzi.co.za

SUMMARY OF FIELDS

- Soil Science
- Environmental Science
- Environmental Auditing

EDUCATION

Completed Studies: Bachelor of Earth Science in Mining and Environmental Geology (University of Venda 2018)

PROFESSIONAL AFFILIATION

- SACNASP
- EAPASA

PROFESSIONAL EXPERIENCE

(2019-2023): **Livhuwani Matsila and Associates (Tshisimani vegetable Farm)**
Position: Soil Scientist

Responsibilities:

- Soil sampling and analysis.
- Water sampling and analysis
- Control of alien invasive plants
- Soil erosion management
- Environmental awareness
- Water management, irrigating vegetable, control of water pump station fixing leaking pipes and boreholes water capacity test
- Checking PH of the soil and the moisture content of the soil.
- Compost preparation

(2024- date): **Naledzi Environmental Consultants (Pty) Ltd**
Position: Soil Scientist

Responsibilities:

- Project Management of Environmental Projects
- Conducting specialist assessments: Soils and Land use potential studies and Agricultural assessments.
- Reviewing specialists' reports.
- Writing and Managing Basic Assessment Report Projects
- Writing and Managing Full Scoping and EIA reports Projects
- Writing and Managing Water Use License
- Writing and Managing Waste Management Licenses
- Writing and Managing Prospecting Rights
- Writing and Managing Mining Rights Project
- Preparing and conducting environmental compliance monitoring projects
- Development of Environmental Management Programs (EMPr)
- Conducting Environmental Due-Diligence Audits
- Conducting Environmental Performance Audits
- Water Quality Monitoring
- Preparations and Conducting Environmental Compliance Monitoring Projects
- Environmental Management Framework and Strategy Planning

PROJECTS INVOLVED IN

Title: **Proposed Bloemdustria Eco Industrial Park**

- Conduct DFFE Screening Report
- Prepare Site Verification Report

Title: **Environmental Compliance Monitoring for Manyeleti Lodge**

- Conduct Monthly Audits with supervision from lead EAP
- Compile ECO findings report and rate environmental compliance

REFERENCES

Ms Sithabisiwe Ncube
060 550 9311
Naledzi Environmental Consultants (Pty) Ltd - Manager

Mrs Amukelani Mgabini
015 583 7100/ 066 489 3465
Environmental Affairs (working for water)- Soutpansberg Management Area

Mrs Lindokuhle Matsila
083 616 8076
Livhuwani Matsila and Associates - Manager

APPENDIX 2