AGRICULTURAL COMPLIANCE STATEMENT OF THE PROPOSED ESTABLISHMENT OF BORROW-PIT THREE FOR THE UPGRADING OF ACCESS ROAD D5010 AND D5021 AND ASSOCIATED INFRASTRUCTURE WITHIN THE LEPELLE-NKUMPI AND FETAKGOMO TUBATSE LOCAL MUNICIPALITIES, CAPRICORN AND SEKHUKHUNE DISTRICT MUNICIPALITIES, LIMPOPO PROVINCE (RAL/T1282/2025).

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. To successfully implement the proposed projects, gravel material will be required for the construction of the proposed roads and bridge.

The proposed project requires a mining permit from the DMPR in accordance with the Mineral and Petroleum Development Resources Act 28 of 2002. The project triggers listed activity (GNR 327) under the Environmental Impact Assessment (EIA) Regulation as promulgated under the National Environmental Management Act (107 of 1998).

1.1 PROJECT LOCALITY

The proposed Borrow Pit 03 is located within Nkotokwane Village, approximately 25,69 km east of Lebowakgomo Town, within the Lepelle-Nkumpi Local Municipality, Capricorn District Municipality, Limpopo Province. The proposed borrow pit is situated approximately 0.34 km west of the tributary that its feeding into Olifants River, between existing residential areas and along the D 4079 road. The central coordinates are 24°23'2.04"S 29°43'34.92"E.

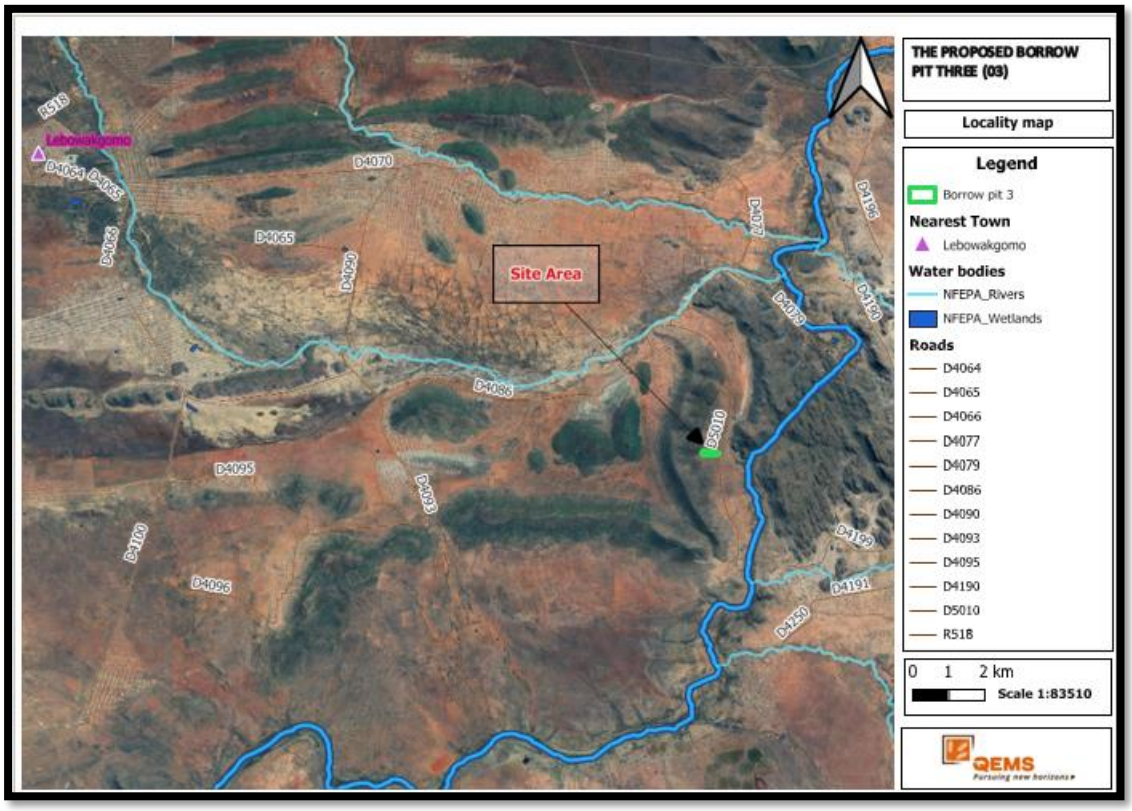


Figure 1: Locality Map (QEMS 2026)

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 (**Page19**); and
    c. Indicate whether or not the proposed development will have an unacceptable impact on the agricultural production capability of the site (**Page18);**
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 20)**;

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 22)**;

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 **(N/A);**

8. Where required, proposed impact management outcomes or any monitoring requirements for inclusion in the EMPr **(Page 21)**; and

9. A description of the assumptions made and any uncertainties or gaps in knowledge or data **(Page 6)**.

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 borrow pit activities will remain within the 5 hectares footprint throughout the extraction and until rehabilitation phases.
- The extraction of gravel and other construction materials will be restricted to the designated area, with no unauthorised expansion beyond the 5ha footprint.
- It is assumed that topsoil will be stripped separately, stockpiled appropriately and reused during rehabilitation.
- The proposed excavation activities will not encroach into the Olifants River or its associated riparian zone, located approximately 200 m west of the site.
- Appropriate stormwater management, erosion control and rehabilitation measures will be implemented to minimise soil degradation and impacts on surrounding agricultural fields

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.

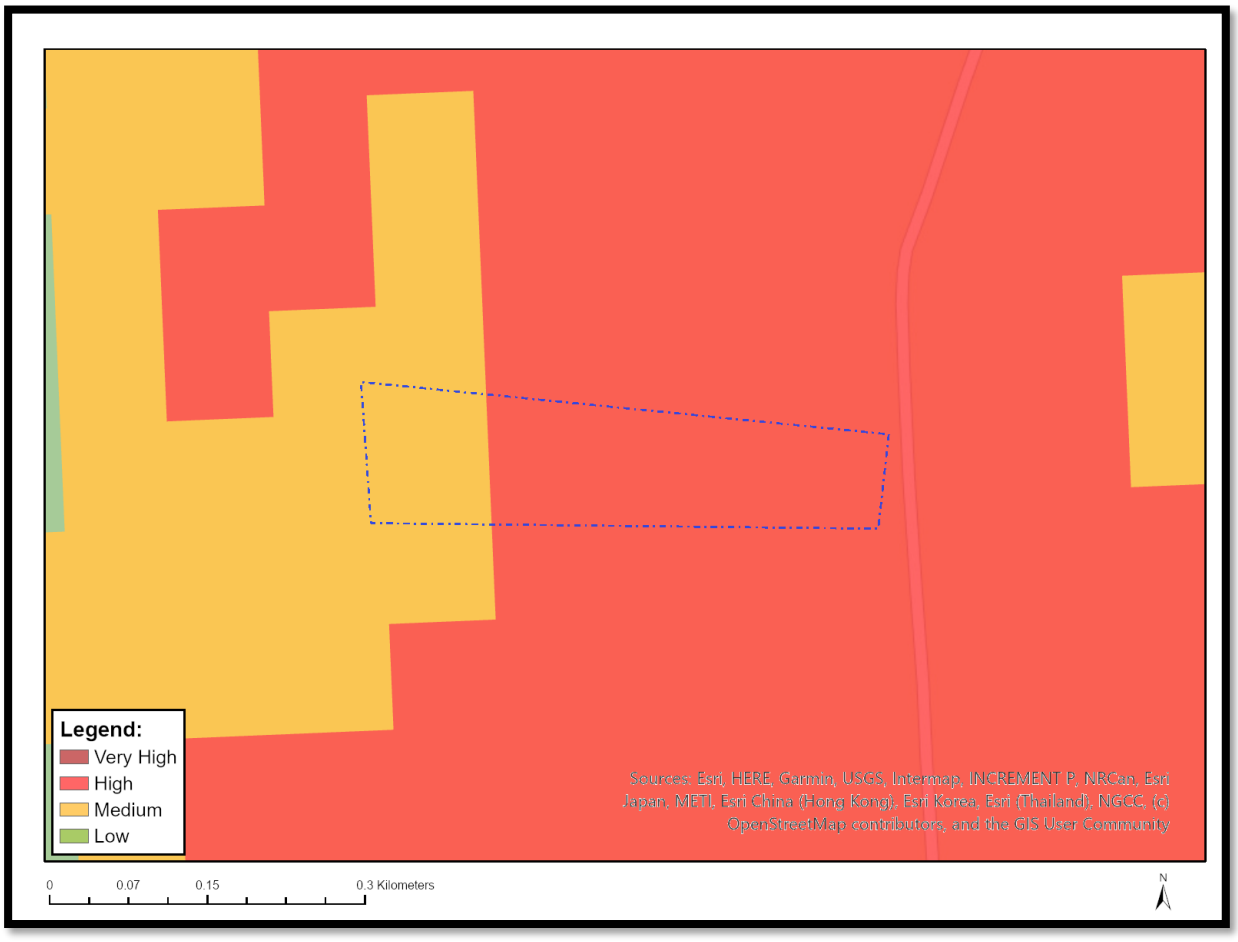


Figure 2: Sensitivity Map for Agriculture Theme

Table 1: Agricultural Theme Sensitivity

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	08. Moderate
High	09. Moderate-High
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.

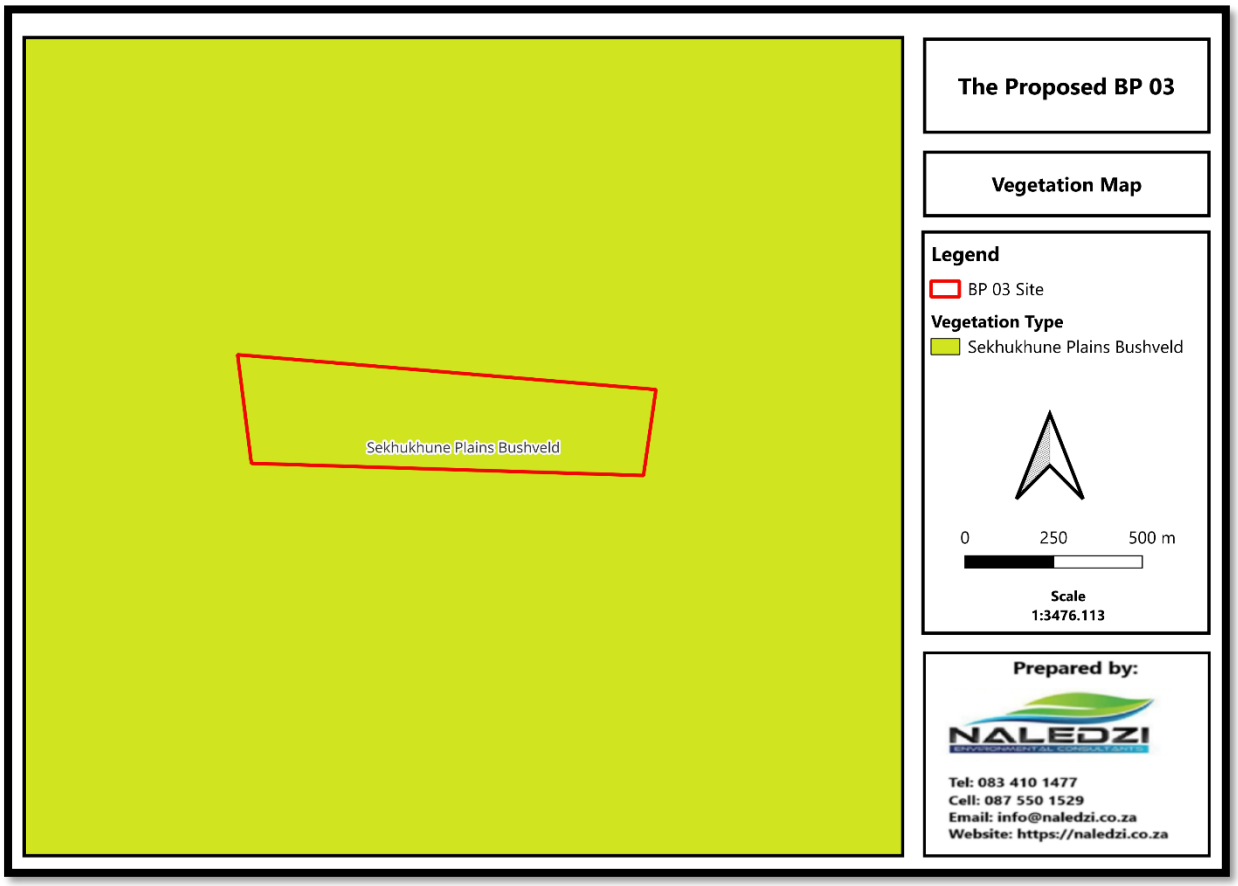


Figure 3: Vegetation Types Map of the Study area

3.2 Geology and Soils

The proposed Borrow Pit 03 site is underlain by the Magaliesberg Formation, which forms part of the Pretoria Group and is predominantly associated with quartzite, shale and subordinate chert lithologies. Soils developed from these geological formations are generally shallow to moderately deep, with sandy to clayey textures and varying proportions of rock fragments. Soil depth and texture may vary depending on the underlying bedrock, weathering processes and landscape position. Exposed and sloping areas may be susceptible to soil erosion, particularly where vegetation cover is disturbed. Soil drainage is generally moderate to good, depending on soil depth, texture and local topographical conditions.

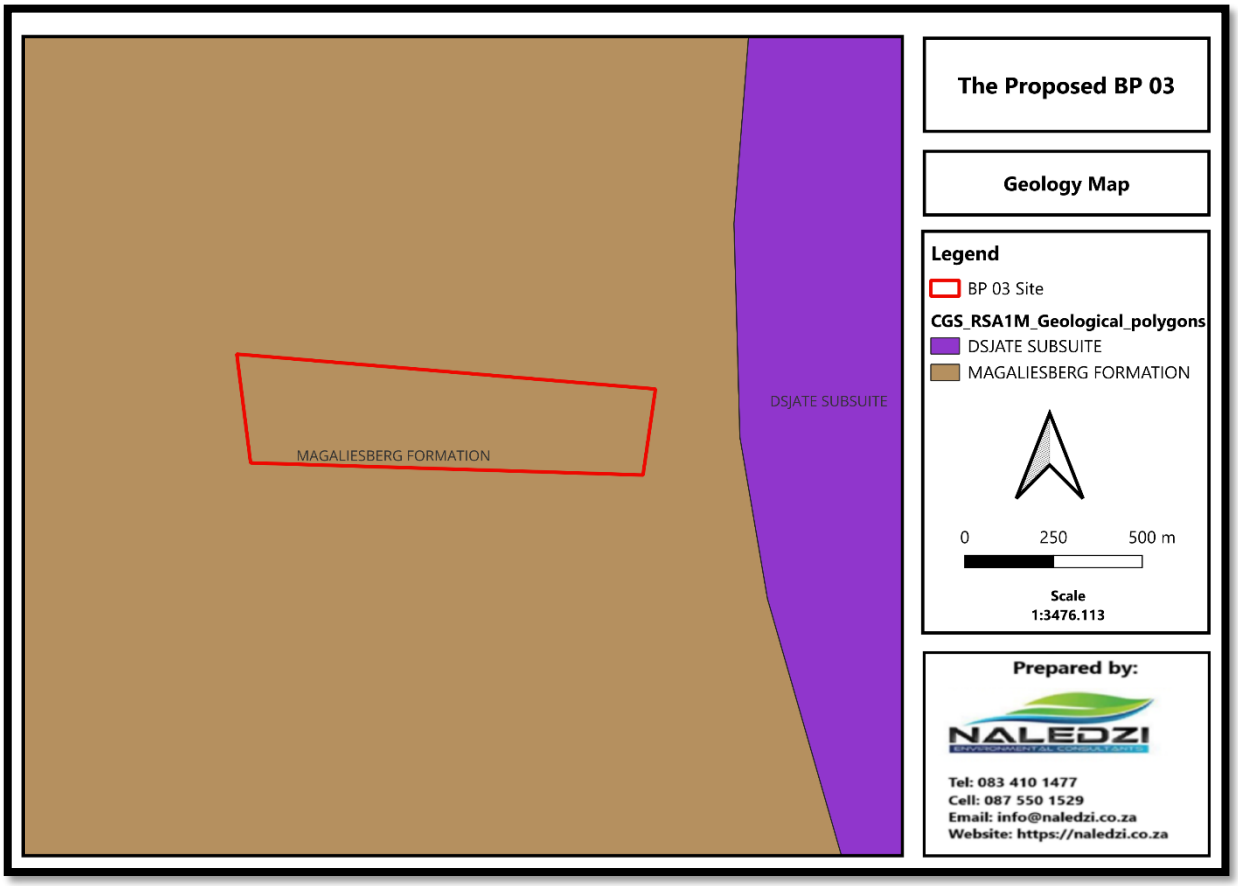


Figure 4: Geological Map of the study area.

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)

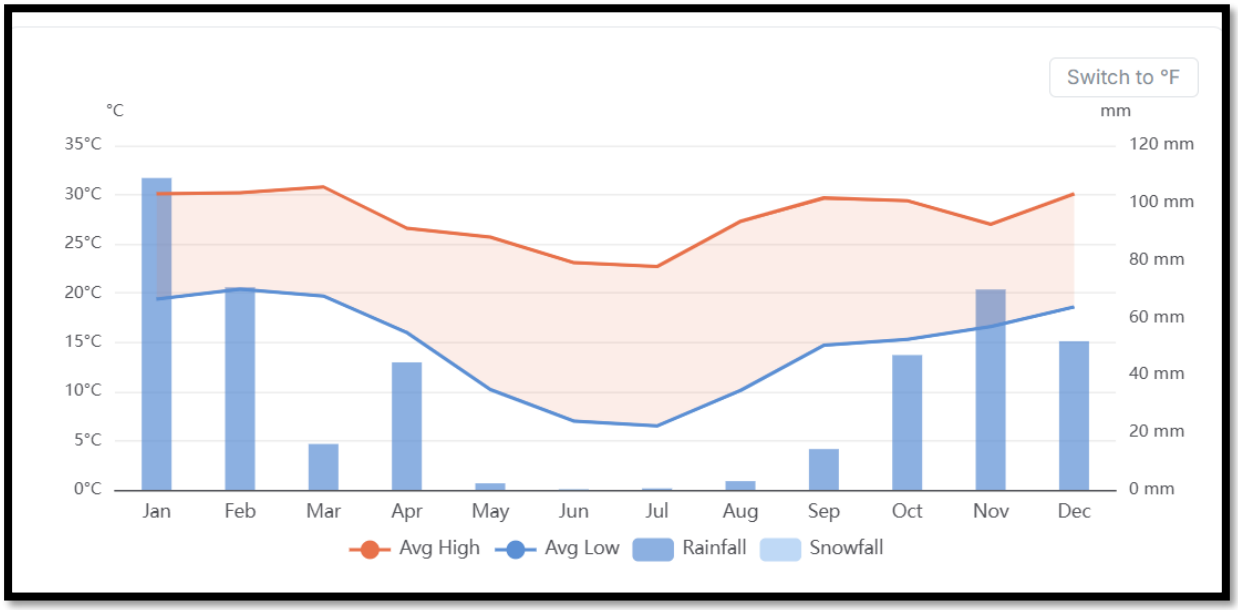


Figure 5: Average temperature by months graph

3.4 Land use

The proposed site is currently vacant and predominantly characterised by natural woodland and grassland vegetation. The area is utilised for livestock grazing and firewood collection by members of the surrounding community. The site is also surrounded by abandoned agricultural fields, indicating previous agricultural activities in the area. The current land use is primarily associated with extensive grazing and the utilisation of natural resources by local communities.

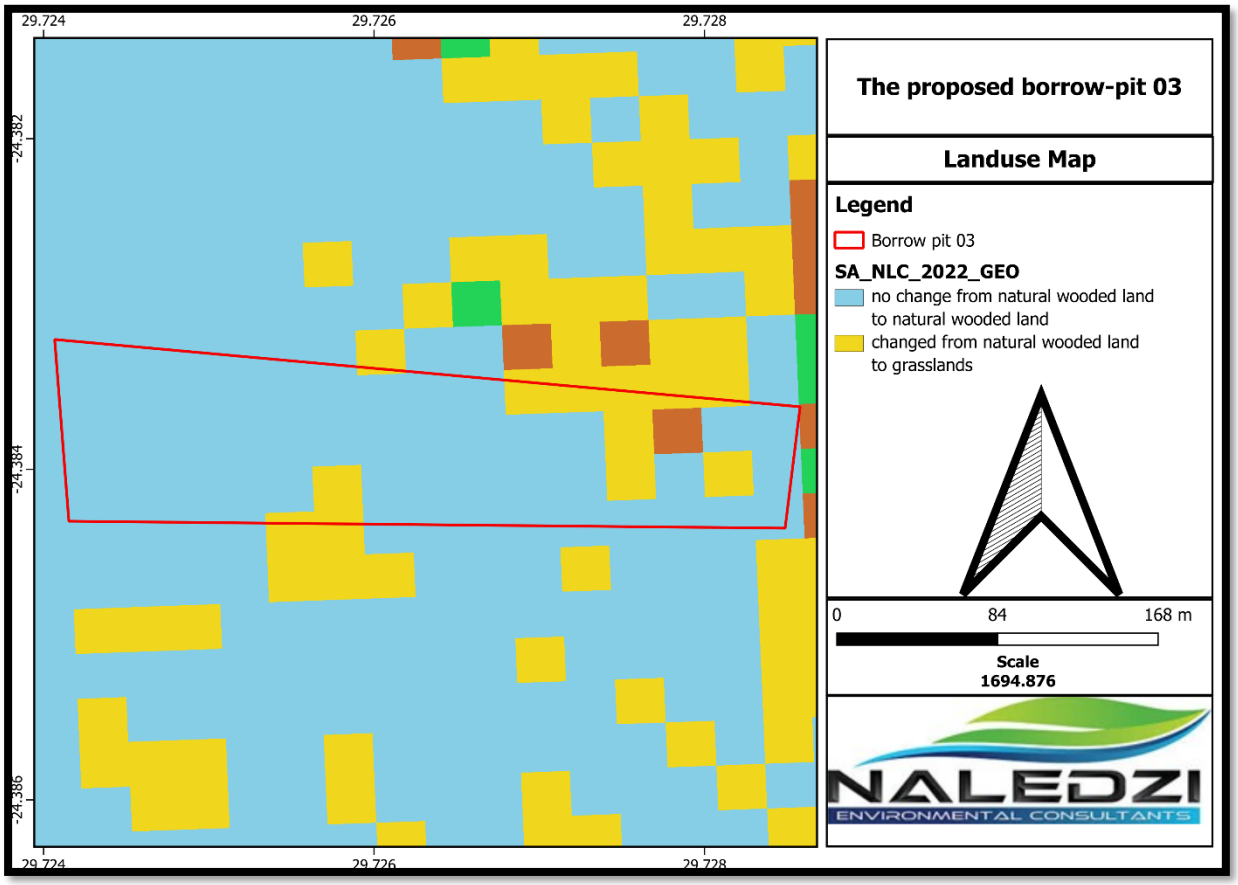


Figure 6: Landuse Map

3.5 Land Capability

The proposed site is predominantly characterised by Land Capability Class VI. Land capability indicates the suitability of land for agricultural use based on soil characteristics, terrain, erosion risk and other environmental limitations. Land Capability Class VI is generally classified as non-arable land, meaning it is unsuitable for regular or intensive crop cultivation due to severe and generally permanent limitations. Such land is primarily suitable for extensive grazing, natural vegetation, wildlife conservation and wilderness purposes, where natural ecological processes are maintained with minimal disturbance. Appropriate soil conservation, erosion control and rehabilitation measures should be implemented to minimise land degradation during development activities.

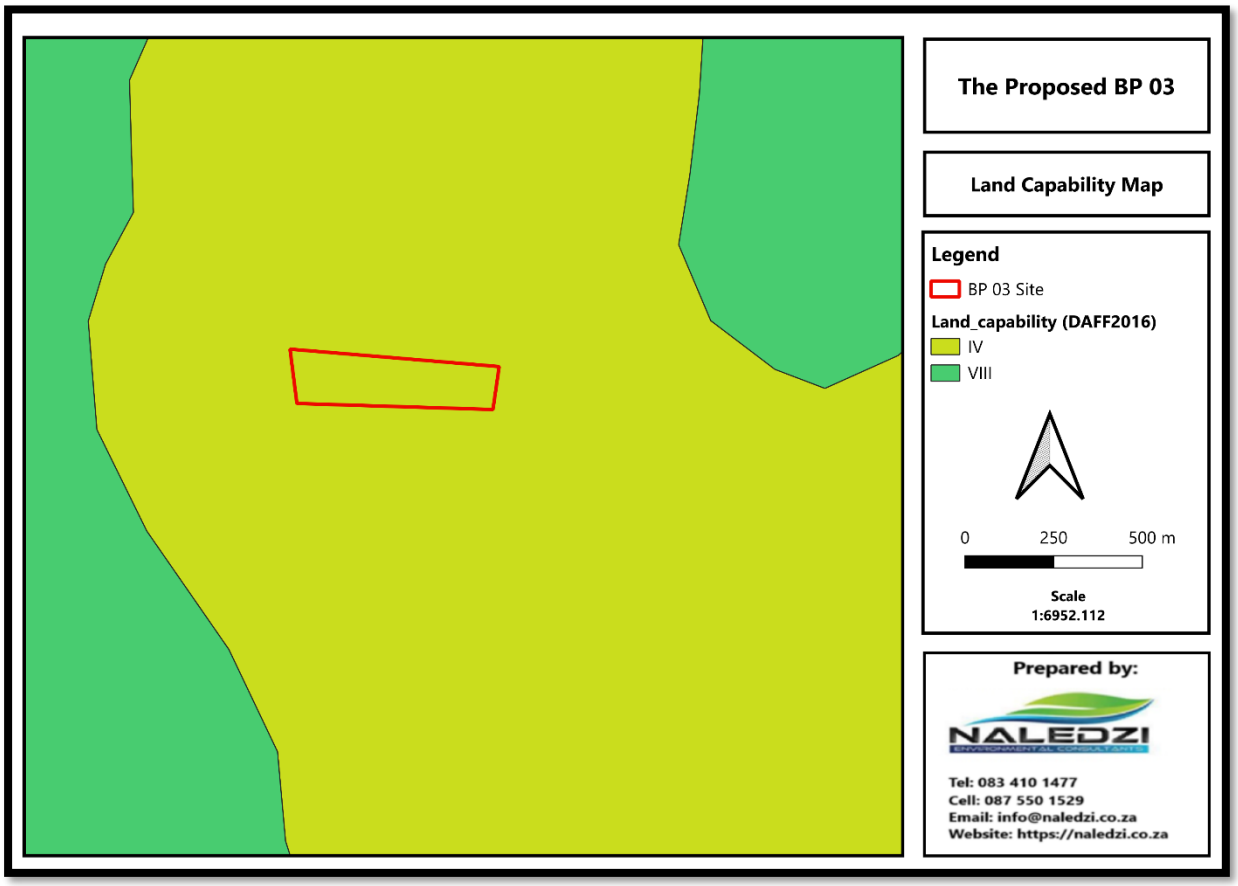


Figure 7: Land Capability Map

3.6 Land Type

The proposed site is predominantly classified as Ae339 land type. 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, texture and drainage conditions. These soils may have limitations related to water movement, soil structure and agricultural suitability. Depending on the landscape position, the soils may be susceptible to erosion, particularly where vegetation cover is disturbed. Appropriate soil conservation, erosion control and rehabilitation measures should therefore be implemented during development activities.

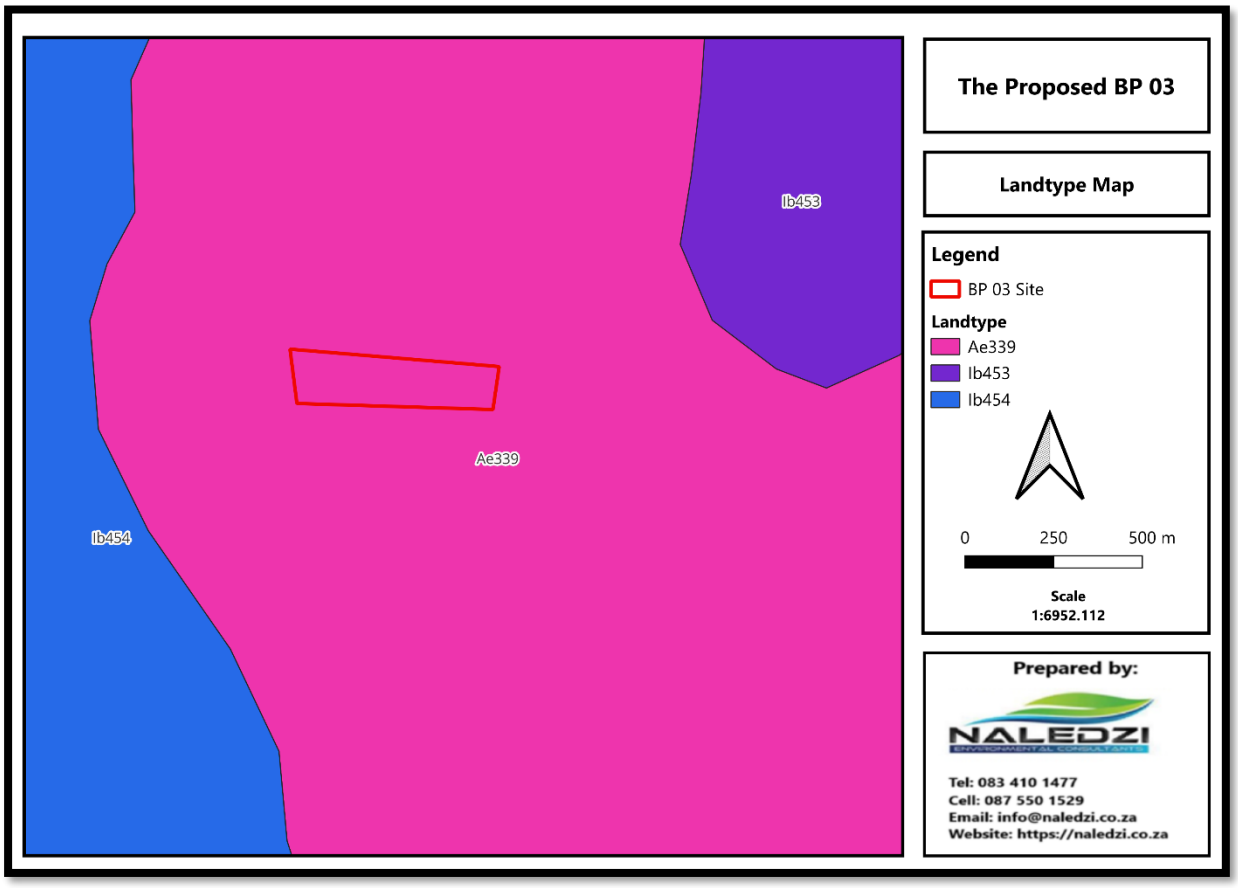


Figure 8: Landtype Map

3.7 Grazing Capacity

The proposed site comprises a single grazing capacity class, namely Class 5 (5 ha/LSU). Grazing capacity represents the amount of land required to sustainably support one Large Stock Unit (LSU). Class 5 indicates relatively moderate grazing potential, requiring approximately 5 hectares to support one LSU under appropriate grazing management. Effective grazing management and appropriate stocking rates should be maintained to prevent overgrazing, vegetation degradation and soil erosion.

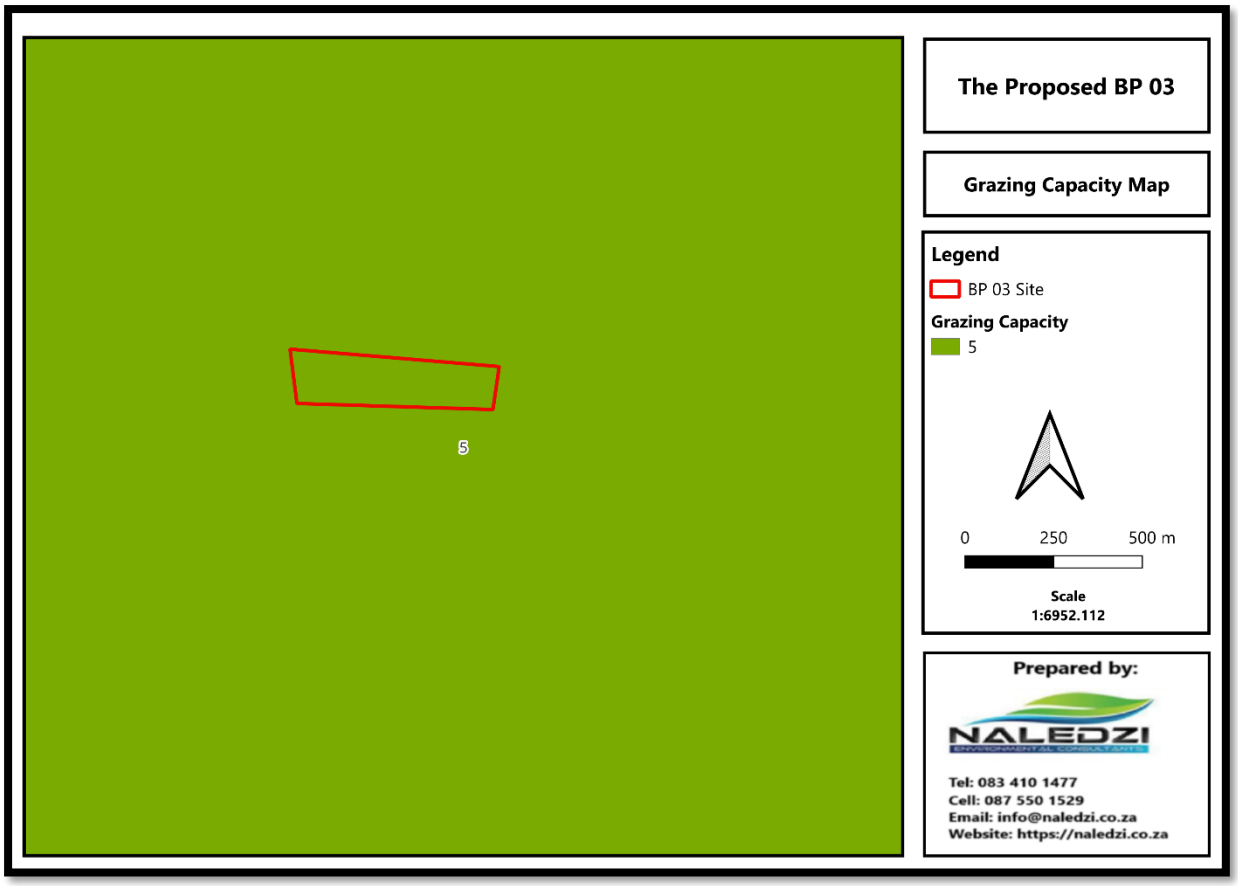


Figure 9: Grazing Capacity

4. FIELD VERIFIED RESULTS AND DISCUSSIONS

4.1 Land uses within and the vicinity of the study area

The proposed site is currently vacant and predominantly characterised by rocky terrain. It is located adjacent to the D4079 road and is primarily used for livestock grazing

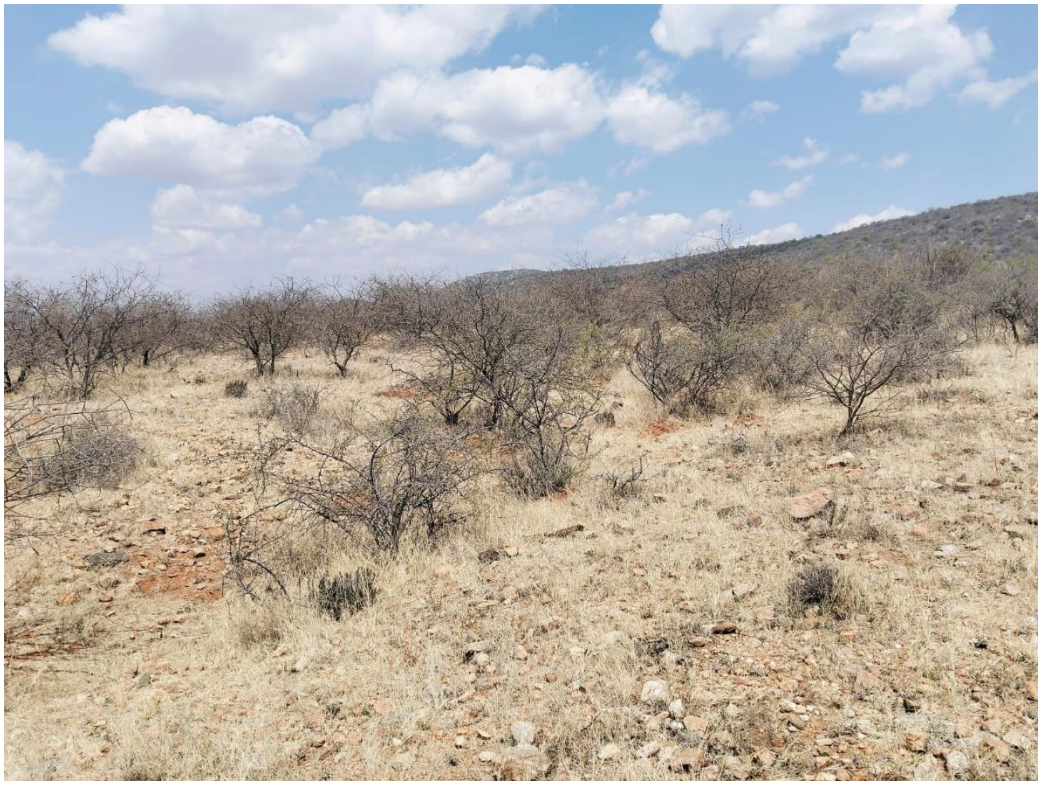


Figure 10: Land uses within and the vicinity of the study area

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 proposed Borrow Pit 03 is predominantly characterised by rocky terrain, with limited soil development, which influences soil depth and agricultural potential. The site is located adjacent to the D4079 road and is currently vacant, with its primary land use associated with livestock grazing rather than crop cultivation. The proposed borrow pit is therefore anticipated to result in a limited direct loss of agricultural land. The project area comprises Land Capability Class IV, which is associated with moderate to severe limitations that restrict cultivation and require careful soil management. The site has a grazing capacity of approximately 5 ha/LSU, indicating moderate grazing potential. Appropriate grazing management and soil conservation measures are necessary to prevent overgrazing, erosion and land degradation during development activities.

Livestock grazing was observed within the project area. During the operational phase, the borrow pit must be fenced off to prevent livestock and unauthorised persons from accessing the excavation area and falling into the pit. Livestock grazing in the surrounding areas should be maintained where safe and feasible. Appropriate traffic management measures, including designated haul routes, warning signage and reduced vehicle speed limits, must be implemented to minimise the risk of collisions between construction vehicles and livestock.

The borrow pit is anticipated to operate for approximately two years, after which extraction activities will cease, and the site will be rehabilitated. Rehabilitation should include the backfilling of excavated areas where feasible, recontouring of disturbed surfaces, replacement of topsoil, and revegetation with suitable indigenous grass species to restore the area to a stable condition suitable for grazing. The borrow pit fencing should be removed once rehabilitation has been completed and the site is deemed safe for livestock grazing. The rehabilitation process should aim to restore the grazing potential of the site and, where feasible, improve its previous condition. Agricultural activities within the surrounding areas are expected to continue without significant interference.

The gravel materials extracted from the proposed Borrow Pit 03 are required for the upgrading of roads and construction of bridges. These developments are expected to provide positive socio-economic and agricultural benefits by improving connectivity between Nkotokwane and Apel villages. The proposed 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 transportation of agricultural products to nearby towns, mills and markets, thereby supporting local agricultural livelihoods, enhancing market accessibility and contributing to local food security.

The proposed Borrow Pit 03 is anticipated to have a low negative impact on agricultural resources, provided that appropriate mitigation and rehabilitation measures are implemented. The associated road upgrading and bridge construction projects are expected to generate long-term positive benefits through improved agricultural access, livestock movement and connectivity within the surrounding communities

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 Borrow Pit 03 RAL	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 associated with the proposed Borrow Pit 03. The borrow pit should be confined to the approved 5 hectare footprint within Nkotokwane Village, Lepelle-Nkumpi Local Municipality. The approved layout should be maintained throughout the extraction phase to prevent unnecessary encroachment into surrounding grazing areas, residential properties and agricultural land.

All excavation activities, temporary access routes, material stockpiles, laydown areas and associated infrastructure should remain within the approved project footprint. Unnecessary expansion of the borrow pit into adjacent grazing areas should be avoided to minimise the loss of grazing land and disturbance to livestock farming activities.

The proposed Borrow Pit 03 should be appropriately fenced to prevent livestock from accessing the excavation area. Livestock movement and access to surrounding grazing areas should be maintained where feasible, and designated access routes should be provided where necessary. Furthermore, haulage activities should be managed through designated routes and appropriate speed limits to minimise disturbance to livestock and surrounding agricultural activities. since the proposed borrow pit is located within a predominantly rocky and vacant area adjacent to the D4079 road, which is primarily used for livestock grazing and has a grazing capacity of approximately 5 ha/LSU, adherence to the approved development footprint and implementation of appropriate mitigation measures are expected to minimise agricultural land fragmentation and disturbance. Upon completion of the approximately two-year extraction period, the site should be rehabilitated and restored to a stable condition suitable for livestock grazing.

5. CONCLUSION

Naledzi Environmental Consultants (Pty) Ltd was appointed by QEMS to undertake an Agricultural Compliance Statement as part of the mining permit 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 Borrow Pit 03 is not expected to result in significant impacts on agricultural resources or agricultural production potential, provided that the recommended mitigation measures are implemented. The proposed borrow pit is located within Nkotokwane Village, approximately 25.69 km east of Lebowakgomo Town and 0,34km west of the tributary feeding into the Olifants River. Current land use is predominantly associated with livestock grazing and firewood collection by the surrounding community. The geological conditions, characterised by calcrete and quartzite rocks, together with limited soil development, restrict the suitability of the site for intensive crop cultivation.

The study area is characterised by Land Capability Class IV, which has moderate to severe limitations that restrict its suitability for regular cultivation and require careful soil management. The land is generally suitable for limited cultivation, livestock grazing and supporting natural vegetation. The grazing capacity of approximately 5 ha/LSU indicates moderate grazing potential, requiring appropriate stocking rates and effective grazing management. The proposed Borrow Pit 03 may result in temporary disturbance to grazing activities, vegetation clearance, soil compaction, erosion and restrictions on livestock movement. However, these impacts are expected to be localised and of low significance and can be effectively managed through the implementation of recommended mitigation measures and the relevant provisions of the EMPr.

The proposed borrow pit is anticipated to operate for approximately two years, after which extraction activities will cease, and rehabilitation will be undertaken. Rehabilitation should include backfilling where feasible, recontouring, topsoil replacement and revegetation with suitable indigenous grass species to restore the site to a stable condition suitable for livestock grazing. The borrow pit must be fenced during the operational phase to prevent livestock from accessing the excavation area. Appropriate traffic management measures, including designated haul routes, warning signage and speed limits, should also be implemented to minimise the risk of livestock injuries and disturbance to surrounding agricultural activities. Following successful rehabilitation and confirmation that the site is safe, the fencing should be removed to allow livestock to resume grazing.

The gravel materials extracted from Borrow Pit 03 are required for the proposed road upgrading and bridge construction projects. These developments are expected to provide positive agricultural and socio-economic benefits by improving connectivity between Nkotokwane and Apel Village. Improved bridge infrastructure will facilitate livestock movement across the Olifants River and improve access to grazing areas on both sides of the river. Furthermore, improved road access will assist farmers in transporting agricultural products to nearby towns, mills and markets, thereby supporting agricultural livelihoods and contributing to local food security.

In accordance with the applicable agricultural assessment requirements, it is anticipated that the temporarily disturbed agricultural areas can be rehabilitated within two years following the cessation of extraction activities and restored to a condition suitable for grazing. Rehabilitation should aim to restore the site's previous grazing potential and, where feasible, improve the condition of the affected grazing fields. Agricultural activities within the surrounding areas are expected to continue without significant interference.

From an agricultural impact perspective, the proposed Borrow Pit 03 is therefore considered acceptable and recommended for approval, provided that the recommended mitigation measures are implemented. Particular attention should be given to restricting extraction activities to the approved footprint, preventing livestock access to the excavation area, maintaining access to surrounding grazing areas, implementing appropriate traffic and erosion control measures, and undertaking effective rehabilitation upon completion of the extraction activities.

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