



INKOSI PHALANE SHOPPING CENTRE

DC28/0007/2023 - DRAFT BASSIC ASSESSMENT REPORT -
Proposed Construction of Inkosi Phalane Shopping Centre on
Portion 1 of Erf 11497, Farm Ruth No. 16833, near Esikhaleni,
within uMhlathuze Local Municipality, KwaZulu – Natal.

ABSTRACT

This is the draft Basic Assessment report (BAR) for the proposed development of Inkosi Phalane Shopping Centre on portion 1 of Erf 11497, Farm Ruth No. 16833, near Esikhaleni, within uMhlathuze Local Municipality, KwaZulu – Natal. It includes a description of the proposed development, preferred alternatives, receiving environment, potential impacts and proposed mitigation measures. Comments raised by the I&APs will be highlighted in the final report with a specific focus on issues/concerns raised. This draft report has been prepared in line with the EIA Regulations, 2014 as amended.

Prepared by: Mondli Consulting Services

Prepared for Phalane Community Trust and TK Investments Holdings

Executive Summary

Mondli Consulting was appointed by TK Investment Holdings to conduct a Basic Assessment process for the proposed development of a Shopping Centre located on Portion 1 of Erf 11497, Farm Ruth No. 16833, near Esikhaleni, within uMhlathuze Local Municipality. The site where the project will take place is falling under Ward 19 of uMhlathuze Local Municipality, King Cetshwayo District Municipality.

The property is located on site that is currently under commercial forest with vegetation on the fringes of the site. Applicant, (TK Investments Holdings (Pty) Ltd) is proposing the development of a shopping centre on the said site which will include a Shopping Centre with anchor shop, line shops and restaurants with parking space. The total footprint inclusive of all structures that will be part of this development is about 77 848m². The proposed project is assessed against the EIA Regulations (2014) and associated Listed Activities to identify the necessary process to be followed in order to comply with the National Environmental Management Act (NEMA, Act No 107 of 1998).

It is observed that the proposed development falls within thresholds of Activities listed within Listing Notice 1 and 3 of the EIA Regulations Listing Notices. Therefore, the proposed development is required to obtain an Environmental Authorization through the Basic Assessment Process prior to its commencement in order for it to be in compliance with NEMA/EIA Regulations.

This is the draft Basic Assessment Report that has been compiled according to Appendix 1 of the EIA Regulations. This report has been formulated following undertaking of:

- Desktop and site assessment;

- Consideration of project scope as described by the Developer;
- Identifying Legislation relevant to the proposed development and
- Pre-Application meeting conducted with the Competent Authority.
- Specialist assessment/input.
- Consideration of comments received from I&As thus far.

The Basic Assessment Process and draft Report therefore includes amongst others:

- Description of the proposed development.
- Description of the receiving environment: description of the property and site including description of biophysical, geographical, heritage and socio-economic conditions of the site and locality of the proposed project.
- Investigation of alternatives for the proposed project including site, technology to be used or motivation for not having alternatives.
- Assessment of possible environmental impact of the proposed development.
- Consideration and incorporation of comments received from the I&As.
- Proposed mitigation measures against the possible environmental impacts and steps to maximize positive impacts.
- Recommendations including monitoring recommendations.

The site development site / layout for the proposed development will be amended to avoid high sensitivity portions.

A buffer area of 39m for wetlands, and 40m for biodiversity constraints have been recommended for the project. The site itself has been modified by the roads construction and

commercial timber. These buffers were recommended by a suitably qualified specialists.

The proposed development promises great gain to the communities of Port Dunford, KwaDlangezwa, Esikhaleni, Madlankala and other surrounding communities through temporary and permanent employment opportunities. This will include provision of required shopping services at a convenient location within a short distance of these areas. Although there are other identified shopping centers within the market area, however the proposed Shopping Centre will provide an alternative. People mostly prefer convenience which in some cases can be associated with reduced costs. Therefore, people closer to the proposed Centre will likely make use of it reducing travel costs which means more funds available for the purchase of other items.

Overall, negative environmental impacts associated with the proposed development, can be reduced to acceptable limits through effective implementation of impact mitigation measures against potential negative impacts. The proposed development will not lead to a compromise of any local or national biodiversity principles/targets nor will it compromise the overall ecosystem functionality provided the recommendations made by Specialists studies and the EAP are followed.

It is therefore the view of the EAP that the proposed development should be considered favorably. The proposed development can be closely monitored by the Competent Authority and other organs of state with legal jurisdiction on site, such as the Department of Water and Sanitation, to ensure that all impact mitigation measures are implemented as they should be. An independent Environmental Control Officer will have to be appointed for continuous month-to-month auditing and monitoring, liaising with the Contractor and reporting to the relevant

parties such as the competent authority. This would help ensure that the proposed development is constructed with least negative impacts on surrounding environment, especially with regards to vegetation and identified wetlands.

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Submitted in terms of the Environmental Impact Assessment Regulations, 2014, as amended promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) to:

KwaZulu – Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA):

Project Title

Proposed Construction of Inkosi Phalane Shopping Centre on Portion 1 of Erf 11497, Farm Ruth No. 16833, near Esikhaleni, within uMhlathuze Local Municipality, KwaZulu – Natal.

A. DETAILS AND EXPERTISE OF THE EAP WHO PREPARED THE REPORT:

Mondli Consulting Services was appointed by TK Investment Holdings (Pty) Ltd to conduct a Basic Assessment process for the proposed development of a Shopping Centre that is ideally located near the N2, P535 to Esikhaleni and P 106 to Richards Bay via Gobandlovu settlement north of the proposed site.

Details of the EAP:

Business Name of EAP	Mondli Consulting Services		
Physical Address	6 Joseph Avenue, New Era House, Suite 9, Durban North		
Postal Address	P.O. Box 22536, Glenashley		
Postal Code	4022		
Telephone	0826799841	Cell	0824187708
Email	bm@mmcs.co.za mondlib@webmail.co.za	Fax	031 5725647

The expertise of the EAP:

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
BM Mthembu	Diploma in Nature Conservation Master's Degree (Environmental Studies Dissertation, Geography) Bachelor of Laws (LLB)	EAPASA registered EAP: No. 2019/168 in accordance with the prescribed criteria of Regulation 15(1) of section 24 H Registration Authority Regulation. Society of South African Geographers (Membership No. 28/09).	Has been involved in environmental and conservation field for over 20 yrs. Conducted EIAs for over 20 years including Strategic Env. Assessment. Has been involved in the review and commenting on development projects impacting on the environment.

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A Mhatu	Bachelor of Science Degree Ecology, Environment & Conservation and Geography	SACNASP Registered (Membership No. 125863).	Has over 9 years' experience in conducting EIAs and EIA related work.
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B. THE LOCATION OF THE ACTIVITY

(i) The site for the proposed Inkosi Phalane Shopping Centre is located within Ward 19 of uMhlathuze Local Municipality, King Cetshwayo District Municipality, KwaZulu - Natal Province. The 21-digit Surveyor

General code is given in the table below.

N	0	G	U	0	0	0	0	0	0	0	1	6	8	3	3	0	0	0	0	0

(ii) The physical address and farm name

The site for the proposed development is located on Portion 1 of Erf 11497, Farm Ruth No. 16833, near Esikhaleni, within uMhlathuze Local Municipality, KwaZulu – Natal. The site is 27.59 HAs in extent.

Almost the whole site is under the commercial forest. The site has gum trees, grass and patches of indigenous vegetation on the periphery.

According to uMhlathuze Local Municipality the site is zoned Forestry. The site is under the custodian of Mondi Forest, although owned by Phalane Community Trust in terms of the land restitution.

The site is falling under ward 19 of uMhlathuze Local Municipality.

(iii) The general coordinates for the property are given below.

Latitude/Longitude	Degrees	Minutes	Seconds
South	28 ⁰	51'	37.91"
East	31 ⁰	53'	36.41"

C. A PLAN WHICH LOCATES THE PROPOSED ACTIVITY OR ACTIVITIES APPLIED FOR AS WELL AS ASSOCIATED STRUCTURES AND INFRASTRUCTURE AT AN APPROPRIATE SCALE.

A locality map has been attached under **Appendix A (iv)** showing the locality of the property including surrounding towns. This includes the site development plan showing where the structures which will be located on site **Appendix A (i), (ii) and (iii)**.

D. DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY, INCLUDING –

(i) All listed and specified activities triggered and being applied for

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TK Investment Holdings (Pty) Ltd is proposing the construction of a Shopping Centre comprising anchor shop, line shops and restaurants. The Centre will also have the taxi rank to accommodate minibuses for the customers that use public transport.

The table below shows Listed Activities within the National Environmental Management Act, 1998 (NEMA), GNR 324, 325 and 327 that will be triggered by the proposed development based on the project description given and the receiving environment of the site.

Table 1: Table showing Listed activities triggered by the proposed development.

Indicate the number and the date of the relevant notice;	Activity No(s) (in terms of the relevant notice)	Describe each listed activity as per the project description (and not as per wording of the relevant Government Notice):
Activity No. 12	<p>GNR. 327 of 2014 (Listing Notice 1) - as amended on 7 April 2017 - the development of –</p> <p>(ii) <u>infrastructure or structures with a physical footprint of 100 square metres or more;</u></p> <p>where such development occurs –</p> <p>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse; -</p> <p>Excluding –</p> <p>(dd) where such development occurs within an urban area.</p>	<p>The development is proposing structures that are more than 100 square metres, and falls outside an urban area. Although the Wetland Specialist has recommended a 39 metre buffer, but the site is falling within 32 metres of a watercourse causing a trigger of this listed activity.</p>
Activity 27	<p>GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017 - the clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for –</p> <p>(i) the undertaking of a linear activity; or</p> <p>Maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>The proposed development will have a development footprint of about 27.59 Ha. Although the site is under commercial forest, however there are patches of indigenous species in between which will be cleared as part of the site preparation which might exceed a 1 hectare threshold.</p>

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<p>Activity No. 28</p>	<p>GNR. 327 of 2014 (Listing Notice 1) - as amended on 7 April 2017 - Residential, mixed, retail, commercial, industrial or institutional development where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:</p> <p>(i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or</p> <p>(ii) will occur outside on urban area, where the total land to be developed is bigger than 1 hectare</p> <p>excluding where such land has already been developed for residential, mixed, retail, commercial, industrial or institutional purposes.</p>	<p>The site will be used for commercial purposes as a Shopping Centre on land that was previously used for agriculture, and the development is outside an urban area on land bigger than 1 hectare. Because the site is bigger than 1 hectare i.e. 27 Ha, we are of the view that this listed activity is triggered.</p>
<p>GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017.</p> <p>Activity No. 56.</p>	<p>Activity 56 – the widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre –</p> <p>(i) where the existing reserve is wider than 13.5 meters; or</p> <p>(ii) where no reserve exists, where the existing road is wider than 8 metres;</p> <p>excluding where widening or lengthening occur inside urban area.</p>	<p>There will be widening of P 106 at the two proposed access points, as well as the intersection of P 535 and P106 which is likely to be more than 6 metres, however there will be no lengthening of the roads.</p>
<p>GNR. 324 of 2014 (Listing Notice 3)</p> <p>Activity 12.</p>	<p>Activity No. 12 - the clearance of an area of 300 square metres or more of indigenous vegetation, except where such clearance of</p>	<p>The site itself is not located within any CBAs or Ecological Support Areas. However, the study area contains one of the national</p>

	<p>indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan in the Geographical location of KZN; .</p> <p>d. <u>KwaZulu – Natal</u></p> <p>iv. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</p> <p>v. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</p> <p>xii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority.</p>	<p>vegetation types, namely the Maputaland Coastal Belt. According to the latest National Biodiversity Assessment (Skowno <i>et. al</i> 2018), this ecosystem has been afforded a threat status of “Endangered”.</p> <p>The clearance of indigenous vegetation is likely to exceed 300 square metres.</p> <p>It is in this context that this listed activity is deemed triggered.</p>
<p>GNR. 324 of 2014 (Listing Notice 3)</p> <p>Activity 18.</p>	<p>Activity No. 18 - the widening of a road by more than 4 meters, or the lengthening of a road by more than 1 kilometre.</p> <p>d. <u>KwaZulu – Natal</u></p> <p>xi. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority.</p>	<p>The site itself is not located within any CBAs or Ecological Support Areas. However, the study area contains one of the national vegetation types, namely the Maputaland Coastal Belt. According to the latest National Biodiversity Assessment (Skowno <i>et. al</i> 2018), this ecosystem has been afforded a threat status of “Endangered”.</p> <p>There will be widening of P 106 at the two proposed access points, as well as the intersection of P 535 and P106 which is likely to be more than 4</p>

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		<p>metres, however there will be no lengthening of the roads.</p> <p>The site sensitivities are deemed relevant and trigger this listed activity.</p>
<p>Activity 26</p>	<p>GNR. 324 of 2014 (Listing Notice 3) - as amended on 7 April 2017 - Phased activities for all activities –</p> <p>i. listed in this Notice and as it applies to a specific geographical area, which commenced on or after the effective date of this Notice; or</p> <p>ii. similarly listed in any of the previous NEMA notices, and as it applies to a specific geographical area, which commenced on or after the effective date of such previous NEMA Notices –</p> <p>where any phase of the activity <u>was</u> below a threshold but where a combination of the phases, including expansions or extensions will exceed specified threshold; -</p> <p>excluding the following activities listed in this Notice –</p> <p>7; (aircraft landing strips and runways) 8; (development and related operation of above ground cableways and funiculars) 11; (this talks to tracks or routes for the testing...racing of motor powered vehicles...) 13; (development and related operation of facilities of any size for any form of aquaculture) 20; (the expansion as it relates to 8 i.e. related operation of above ground cableways and funiculars where the development</p>	<p>We are of the view that this activity is triggered, because the Developer has indicated that there is a possibility to explore and add other developmental aspects in future like housing.</p>

	footprint will be increased) 21; (expansion as it relates to 11 – tracks or routes) and 24 (expansion as it relates 13 – aquaculture)	
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(ii) A description of the activities to be undertaken including associated structures and infrastructure

Background of the proposed development

As highlighted above the project entails a Shopping Centre with anchor shop, line shops and restaurants. The Centre will also have a taxi rank within the site to cater for customers using public transport.

Overview

The proposed development will include a Shopping Centre with a GLA of 58 276m² for this phase. The total development footprint is estimated at 77 848m².

The applicable standards for the construction of a Shopping Centre of this magnitude will be followed during the construction of the proposed project.

Project Objectives

The proposed Shopping Centre is intended to provide convenient neighborhood shopping experience, inclusive of other services like health and entertainment to the surrounding residents and people travelling along the N2. The development take advantage of the current N2, and its strategic location along the P353 and P106 to Esikhaleni and Richards Bay. The development is also situated in the vicinity of the University of Zululand, and will serve staff and student population of this University.

The development is likely to benefit the whole of Esikhaleni and surrounding areas neighbourhood, motorists travelling along N2, and the Regional precinct. The rural character of the area where the site is located is in need of a commercial development of this nature and magnitude as confirmed by the concluded market feasibility study.

The proposed development will provide the residents with a wide choice when it comes to goods and services. Residents will not be compelled to travel all the way to Empangeni and Richards Bay. Some will even reach the Centre by walking.

Services on-site

Access/Roads

The development site is located almost adjacent to the N2, which runs in somewhat north-south directions in the direct vicinity of the development site. The site can be accessed from the N2 highway on Exit 315 on northbound and southbound of the N2.

At a local scale there is P535, located to the south of the development site. P535 links the development site from the N2 to Esikhaleni. P533 intersects with N2 western and eastern terminals and forms a diamond interchange and in that way provides access from the north and south to the vicinity of the development site. Near the vicinity of the development site, P535, intersects with P106 and forms a three-legged intersection. P535 has dedicated turning lanes into P106.

P106 is where direct access points will be located. P106 is an alternative route that provides access to and from Richards Bay/Empangeni apart from the N2 as it links up with R34 in the north. It also links up the areas such as Gobandlovu, Madlankala, with the development site.

The proposed development will be served by two ingress/egress points. Access to the development site will not be taken off the National Route 2 or P535. Instead one access point (Development Access Point 1) will be taken off the P106. This access point will be at a distance of not less than 300 metres from the centre of P535 with P106, or as agreed with the responsible roads' authority. Another access point (Development Access Point 2) will be taken off the P106. This access point will be at a distance of not less than 150 metres from the centre of P106 with Development Access Point 1, or as agreed with the responsible roads' authority. In essence P535 & P106 links Empangeni, Richards Bay, Vulindlela and Esikhaleni.

All road improvements, accesses and exits are to be designed and dimensioned according to the responsible road authority's standards and requirements. Further comments will be sought from both uMhlathuze Local Municipality and the KwaZulu – Natal Department of Transport.

Furthermore, raised pedestrian crossings are also proposed to be provided at both access points on either side of the intersection. These pedestrians crossings should be linked to the public transport lay-bys and will also play a role of being traffic calming measures.

Electricity

The preliminary electrical services assessment report has been conducted and prepared by RWP on site dated 2 May 2023.

The assessment has shown that the projected demand for the project is in the region of 10MVA for the complete Centre. uMhlathuze Municipality has advised that the electrical power can be provided by the Municipality itself or sourced directly from Eskom. During the meeting between the Electrical Engineer / RWP and the Municipality, the Municipality confirmed that the nearest substation is Cygnus which has recently been upgraded to 2 x 40MVA transformers. The Municipality is reported to have confirmed that there are no electrical services traversing the site.

The project will also explore the use of Solar, and low noise generator back up system. During the construction phase, the necessary connections will be done on site after obtaining the necessary permits.

Water Supply

The preliminary assessment has been done by Ibhongo Consulting Engineers with regard to the water supply and availability. The necessary peak water demand has been calculated by Ibhongo Consulting

Engineers, which is about 230.4 m³ / hour. The uMhlathuze Municipality has indicated that it can supply water of up to 3ML/day.

The areas that are adjacent, and in the vicinity of the site have portable water. The proposed development will do the necessary connections, through the relevant Water Services Authority.

During the construction phase, it is the responsibility of the contractor to provide water for construction purposes as well as clean drinking water for the workers.

The project will also explore the use of back up rain water harvesting as part of energy efficiency initiative.

Sewer Supply / Wastewater

The preliminary assessment has been conducted by Ibhongo Consulting with regard to the sewerage and its disposal. The Engineers calculations have revealed that the average wastewater generation per day is 0.5897 ML/day.

The existing Esikhaleni wastewater treatment plant has a design capacity of 12ML, which is adequate to receive additional wastewater from Inkosi Phalane Shopping Centre. The plant is said to be currently running at 50% capacity as it receives only 6ML per day.

uMhlathuze Municipality is reported to have confirmed to Ibhongo Consulting Engineers that the existing sewer reticulation can handle additional wastewater. The project has also explored the use of the package plant for sewerage disposal, however with the confirmation of the wastewater capacity within the Municipality the package plant idea is likely to be abandoned.

Temporary chemical toilets will be provided by the Contractor during the construction phase, and the number of toilets will be determined by the number of workers on site, but a minimum of two toilets will need to be provided (one for males and one for females).

Stormwater

The stormwater management plan is currently being compiled by Ibhongo Consulting Engineers.

The aim of the stormwater management plan is to manage the stormwater resources of the collective watersheds to:

- Prevent flood damage or concentration of run-off;
- Divert stormwater into existing stormwater systems;
- Preserve the natural and beneficial functions of the natural drainage system;
- Preserve and enhance stormwater quality and
- Attenuate the difference between pre and post development flows

The stormwater compilation has to take into consideration the recommendations highlighted in the Wetland and Biodiversity studies.

Waste Management during the construction phase

All waste/rubble from the construction phase will be stored in wind and scavenger proof containers. Such waste will regularly be transported to and disposed of at the nearest waste disposal site, which is King Cetshwayo Landfill site at Empangeni. The appropriate area and interval for waste disposal will be agreed upon between the Engineer, Contractor and ECO to ensure that waste disposal does not culminate in any environmental degradation.

Waste Management during the operational phase

General Waste produced during the operational phase will be disposed either through collection by uMhlathuze Local Municipality or a private service provider. The developer will take all necessary measures to ensure that waste from the proposed development does not cause any negative environmental impacts.

Construction Phase

The construction phase of the development will include:

- Clearing and cutting of the commercial forest and vegetation for site preparation
- Excavations for foundations
- Construction of the foundations and rest of the building structures including walls, windows and roofs
- Tubing for electricity and piping for water supply
- Painting and other finishing
- Installation of required facilities within the stores and the Centre as well as food outlets
- Development, paving and marking of parking areas and access points

Through engagement of an Environmental Control Officer (ECO), transplanting of the identified protected species will be relocated and transplanted once a permit is obtained from Ezemvelo KZN Wildlife.

E. A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT WITHIN WHICH THE DEVELOPMENT IS PROPOSED INCLUDING –

- (i) *An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and have been considered in the preparation of the report.*

Table 2: Table showing identified legislation, policies, plans and municipal development planning frameworks applicable to the proposed development.

LEGISLATION	AUTHORITY	COMPLIANCE/APPLICABILITY
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National Environmental Management Act (No. 107 of 1998).	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	The Environmental Management: EIA Regulations promulgated according to this Act guides the Environmental Impact Assessment Process conducted for the proposed development.
EIA Regulations, 2014 as amended.	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	EIA Regulations ought to be adhered to during the Environmental Impact Assessment including determining the need for an Environmental Authorization, the Application/Assessment Process to be followed, conducting of the public participation process and report formulation.
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	These guidelines are considered in terms of exploring alternatives linked to the proposed development.
Guideline on Need and Desirability, Department of Environmental Affairs	Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	In terms of these guidelines the need and desirability of the project has to cover certain specifics like training, safety, service delivery, benefits to the local people and the alignment of planning related issues to the project.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	All necessary steps will be taken to reduce the impact of the project on the biodiversity of the receiving environment.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	Measures have been provided within both the draft Basic Assessment Report (BAR) and draft Environmental Management Programme (EMPr) for control of emissions that may lead to localized

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		impacts on air quality. However, the proposed development is not expected to have any significant air quality related impacts.
The National Water Act (No. 36 of 1998).	Department of Human Settlements, Water and Sanitation	This piece of legislation is responsible for ensuring that water resources are safeguarded.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	All waste produced during construction and operational phase of the project will be handled and disposed of in compliance to this Act and associated Regulations to ensure that there are no adverse on/offsite impacts resulting from waste storage or disposal.
Alien and Invasive Species Regulations, 2014.	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	All necessary precautions will be taken throughout the project life-cycle to ensure that no alien or invasive plant species are introduced as a result of the project.
National Forests Act (Act No. 84 of 1998)	Department of Environment, Forestry and Fisheries	The necessary precautions will be taken to minimize removal of trees, especially those that are indigenous and of conservation importance.
KwaZulu-Natal Amafa and Research Institute Act, 2018	KZN Amafa Research and Institute	Provides for the safeguarding of heritage resources within the project area. There are no known heritage or cultural features within or close to the site. However, KZN Amafa and Research Institute is being engaged for commenting, and possible recovery and procedure that needs to be followed in case of chance findings.
Noise Control Regulations (Regulations 154, 10 January 1992)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and	Noise levels throughout the project cycle must be kept as low as possible to ensure that there is no nuisance or health impact on community and/or workers resulting from the proposed

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	Environmental Affairs (Provincial Authority)	project. These can only be achieved by following the prescripts of these Regulations.
National Development Plan	RSA Government Departments, Municipalities and Public Entities	One of the ideals of NDP is the job creation and rural development. Local people will be prioritized by the project in terms of job opportunities. It is without doubt that the project will make a meaningful contribution to the upliftment of the surrounding rural areas.
South African Constitution, 1996	Government of the Republic of South Africa	Due diligence will be taken to ensure that project related activities do not result in the violation of constitutional rights of community members and/or employees within project.
uMhlthuze Local Municipality Integrated Development Plan (Fifth Generation IDP) 2022/2023 – 2026/2027	uMhlathuze Local Municipality	<p>There are high levels of poverty and inequalities within the Municipality. This is further exacerbated by lack of critical skills, unemployment and sluggish economic growth. It is therefore necessary to come up with strategic objectives that will enable job opportunities and economic development. This project will in a way contribute towards this municipal goal.</p> <p>According to the Municipality's IDP, uMhlathuze Municipality needs to facilitate the improvement of literacy levels of the community, and to ensure adequate skills base to foster enterprise growth and job creation. The proposed project will also provide certain skills to the local people who will be employed by the project.</p> <p>The proposed development is therefore in line with the IDP as it will provide economic opportunities and create employment. The EIA and other</p>

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		assessments are aimed at ensuring reduced negative environmental and social impacts, such that the development is undertaken in a sustainable manner.
King Cetshwayo Integrated Development Plan (IDP), 2020/2021	King Cetshwayo District Municipality	<i>“Supporting meaningful Local Economic Development (LED) initiatives that foster micro and small business opportunities and job creation”</i> . These and other key challenges and goals of KCD Municipality will somewhat be addressed by the proposed development.

F. A MOTIVATION FOR THE NEED AND DESIRABILITY FOR THE PROPOSED DEVELOPMENT INCLUDING THE NEED AND DESIRABILITY OF THE ACTIVITY IN THE CONTEXT OF THE PREFERRED LOCATION

The need and desirability of the project has to be informed by the principle of sustainability as provided for in the National Environmental Management Act, Guideline on Need and Desirability issued by the National Department of Environmental Affairs (2017), and ultimately the Constitution of South Africa. This serves as a way of ensuring that the proposed development is ecologically sustainable, and socially and economically justifiable.

The Guideline cited above among other things state that it is important to review the issues of need and desirability against the listed activities that have given rise to the application in its entirety. The need and desirability have to consider the broader community needs and interests as reflected in the municipal Integrated Development Plan (IDP), Spatial Development Framework (SDF), Environmental Framework of the SDF and Environmental Services Management Plan (ESMP) for the study area.

uMhlathuze Municipality is the third largest municipality in the Province of KwaZulu-Natal. The Municipality is characterized mainly by disadvantaged areas, including areas under *amakhosi*, which includes Dube, Mkhwanazi, Khoza (Bhejane), Zungu (Madlebe), Somopho (Mthembu), Obuka (Biyela) and Obizo (Cebekhulu). The population is estimated at 410 456 as per Community Survey 2016.

The Municipality in its IDP has made it very clear that rural communities are vulnerable because of their economic status. In this regard the Municipality holds the view that poor people must receive special attention in planning.

The uMhlathuze land area covers 123 359 ha and incorporates Richards Bay, Empangeni, eSikhaleni, Ngwelezane, eNseleni, Felixton, Vulindlela, Bhucanana and Heatonville as well as the rural areas outlined above.

One of the key challenges within the Municipality is local economic development with: -

- *Lack of viable economic activity centres to promote internal economic linkages.*
- *There is high unemployment rate within the Municipality. The high level of unemployment leads to an increased number of communities living under abject poverty.*

Sustainable permanent jobs will be created by this project, which will include cashiers, packers, cleaners, security personnel and other roles. Employment created during both construction and operational phases will go a long way in improving the household income. This may help most households to afford basic needs, especially in the face of constantly increasing food prices. Some people may have lost income sources due to retrenchment as a result of Covid-19. This development is likely to help such people to improve their finances, and give them a new source of hope for a better future.

Currently, there are no formal retail centres, similar to the proposed development, located within this proposed rural set up. There is Esikhawini Convenience Centre (OK Mini Market) near the proposed project. There is also Esikhaleni Mall which is currently closed. The range of classifications of these shopping centres and the complimentary tenant mix means that they do not necessarily compete with one another for market share. It is also unlikely that they would compete for market share with of the proposed development. This presents an opportunity for the proposed development to capture a significant amount of the market area population in future.

The proposed development can be expected to experience some injections from transient traffic along N2, the surrounding rural and urban areas identified above. The centre is located at a strategic point adjacent to N2, along P535 and P 106 and promises to be a node of unique location. The proposed development will also provide for pedestrians and public transport customers. The taxi and bus routes will also contribute towards injections experienced by the proposed centre.

The proposed site is very close to the Esikhaleni Node as identified by the municipal IDP. Esikhaleni is classified as a Secondary Node based on the type of facilities and services it currently offers to the local people and the rest of uMhlathuze residents. Although the node still functions primarily as a dormitory town, it has the potential to develop into a primary node if the local economy becomes more sustainable, specifically in respect of growth and employment opportunities. It is located approximately 10 km from Vulindlela/Dlangezwa and accessible via the N2. Esikhaleni is located approximately 15 km from Empangeni and 20 km from Richards Bay. The proposed site is strategically located within this precinct.

The main objective of these identified nodes is to provide commercial, social facilities and infrastructure closer to the people. Specific planning and development interventions are required to identify community services that are to be encouraged at these nodes.

It is remarkable that the location of the project is strategic in the context of the tourism promotion by the municipality. The tourists visiting the municipal area, and Game and Nature Reserves located north of KwaZulu – Natal are likely to benefit from this Regional Centre.

It has to be noted that the mining sector is well established within the municipal area, this includes Richards Bay Minerals and Tronox which is operating in the vicinity of the proposed project. The project notes that Richards Bay has an Airport, and according to the cited IDP it is planned for an upgrade. All

this combined renders the site ideal for the promotion of economic growth, which has to happen in a sustainable manner while benefiting the community, in particular the rural areas and townships.

The project is located within the municipal area, and in the vicinity of the Richards Bay Industrial Development Zone, which has been designated as a national priority for stimulating growth in the manufacturing sector. The manufacturing sector is important in the Province of KwaZulu – Natal as the largest contributor to the Provincial Growth and Development Plan (PGDP).

Looking at the guideline on need and desirability, and focusing more on planning tools like the IDP and SDF, these have been useful in the assessment. The said guideline provides a list of 14 aspects, which must be considered. Below the 14 aspects have been addressed for the proposed development.

- 1. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority? (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP).***

The project is indeed in line with the ideals of uMhlatuze Local Municipality's Integrated Development Plan (Fifth Generation IDP) 2022/2023 – 2026/2027. One of the priorities of uMhlatuze Local Municipality as mentioned in the IDP is to promote economic growth leading to the creation of decent jobs.

The Municipality also aims to ensure that development is sustainable in line with Global Sustainable Development Goals and the National Environmental Management Act (Act 107 of 1998). Through the Environmental Impact Assessment Process being conducted for this project, negative impacts can be reduced and positive impacts can be enhanced through implementation of mitigation measures and recommendations including recommendations from different specialists and stakeholders. This will help ensure that the proposed development takes place in a sustainable manner.

- 2. Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?***

According to the Municipality the site is located in an area which is earmarked for future housing projects and a possible development node.

The project area is located just in the vicinity of N2, P535 and P106 road network. The main modes of transport within the locality of the site include taxi and bus transport. The project is also accessible on foot, and this might be of great benefit to those without private vehicles to access the Shopping Centre with ease. This will further reduce both travel time and costs required.

Therefore, except for the option of leaving the site as it is, this is the best development for the area as it will provide services that are a requirement for the surrounding communities. With the Basic Assessment being conducted, sensitive areas within the site can be avoided and other mitigation measures can be implemented to reduce negative environmental impacts.

- 3. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate).***

The proposed development is viewed as a project that is needed by the community as confirmed during the community survey conducted by Urban Econ on 23 and 24 January 2023. The proposed project will provide temporary employment during construction and permanent employment during the operational phase. This is much needed by the community, and will provide a significant boost to those who lost employment as a result of Covid-19, and those who suffered the impacts of the looting that took place in July of 2021 within the Province of KwaZulu – Natal.

The proposed development will also benefit the communities by providing services such as ATMs and the shops at a much closer distance compared to what was available before the development. This will most likely decrease travelling costs for most to get to a place where they can purchase required items.

4. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?

Most services are already available in the vicinity of the site as discussed in detail above. It is therefore believed that required services are available from the different authorities, and will be adequate for the operation of the proposed Inkosi Philane Shopping Centre.

5. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?

The discussion between uMhlathuze Municipality's Infrastructure and Technical Services and Project Engineers has revealed that most services can be provided to the project.

6. Is this project part of a national programme to address an issue of national concern or importance?

The project does aim to address an issue of national concern, as the issue of poverty and unemployment is not only a concern for local and provincial governments, but of the national government as well. One of the main ways to tackle unemployment and poverty within the country is to encourage local economic development which helps create employment for locals, and stimulation of the local economic activity. The proposed development will not only create job opportunities, but will also create a safe trading space for local small businesses that may be able to be placed within the Shopping Centre.

The project will also contribute in infrastructural development within the proposed site and the node. It is also of interest that the project has a focus on rural and township development.

7. Is the development the best practicable environmental option for this land/site?

The site for the proposed development is currently zoned Forestry, and is under commercial timber. Mondi Forest has agreed that they will do their final harvest to make way for the project. The site is already disturbed and has not much indigenous vegetation, except on the site periphery and the southern tip of the site.

The site has high sensitivity with regards to terrestrial biodiversity, and aquatic theme as per the national web based screening report. However, the field verification exercise has shown a different picture as detailed under the two biodiversity and wetland studies below.

8. *Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?*

It is not expected that the approval of this application would compromise the integrity of any IDP document, whether at a Local or District municipal level. In fact the project will enhance the ideals of both the IDP and inherent SDF.

9. *Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?*

The project has put in place alternatives and mitigation measures in the form of buffers to safeguard against all sensitivities identified within the site, as well as adjacent to the site.

The proposed development intends avoiding all sensitive areas identified on site. The uMhlathuze Local Municipal IDP is quite emphatic on the issues of environmental protection. It speaks of areas to be set aside as conservation zones. These are areas of biodiversity / environmental significance, which are not viable for proclamation as nature reserves, but that require some form of legal protection. This includes unique or regionally important natural habitats; wetland and forest areas that are protected in terms of national legislation and all areas that fall within the 1:100-year flood line. No transformation of the natural assets or the development of land for purposes other than conservation should be permitted in these zones. However, sustainable use of renewable resources is permitted.

Therefore, the proposed development is unlikely to compromise the integrity of the existing environmental management priorities for the area. The project has compiled sound mitigation measures against all potential negative environmental impacts.

10. *Do location factors favour this land use (associated with the activity applied for) at this place? This relates to the contextualisation of the proposed land use on this site within its broader context).*

Yes, the location factors favour the proposed land use. There site is strategically located near the N2, and along P535 and P106 which are major transport networks within the municipal area. The site is easily accessible to both motorists and pedestrians. The site is located closer to most rural areas that would benefit from having a shopping centre near them.

11. *How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural / natural environment)?*

The current site development has taken into consideration the sensitive areas on site, in order to avoid the adverse impact on sensitive areas identified on site, as well as in the vicinity of the site. No cultural or heritage features were observed on or near the site, however this is subject to comments from KwaZulu – Natal Amafa and Research Institute.

12. How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc)?

Provided that the project is carried out as per the description and scope of works given to the EAP, the proposed development is not expected to have any negative impact on the people's health and wellbeing.

Noise, dust and exhaust emissions are expected during the construction phase. However, none of these are expected to be at levels that would have significant impact on people's health or wellbeing.

13. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?

No. There are no unacceptable opportunity costs expected.

14. Will the proposed land use result in unacceptable cumulative impacts?

No unacceptable cumulative impacts are expected to result from the proposed development.

There are three (3) different phases that will form part of the proposed development. These are:

(i) Pre-construction and planning phase

This phase includes the appointment of professionals across different fields of expertise for all required assessments, permits and designs. These need to be undertaken as part of the project planning to ensure successful implementation of the project, and its ultimate compliance to all relevant pieces of legislation.

(ii) Construction phase

This phase includes appointment of Contractors, Sub-Contractors and labour to carry out construction of the different structural components of the project. This includes appointment of locals which are often appointed for labour, but may also be appointed for other roles based on skills required versus skills possessed. This phase also includes a strong involvement of engineers and for this application, an Environmental Control Officer will also be required.

(iii) Operational phase

This will include the operation of the different retail stores within the Shopping Centre. This will include rental of spaces in the Centre to different businesses and appointment of required work force.

G. A MOTIVATION FOR THE PREFERRED SITE, ACTIVITY AND TECHNOLOGY ALTERNATIVE

As per GN. R 326, Appendix 1(2)(b), alternatives for the proposed development are to be identified and considered, and this is in line with the definition under Chapter 1 of the EIA Regulations, interpreting alternatives as “in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the –

- a. Property on which or location where the activity is proposed to be undertaken;
- b. Type of activity to be undertaken;
- c. Design or layout of the activity
- d. Technology to be in the activity;
- e. Operational aspects of the activity

This includes the option of not implementing the activity. This approach compels the developers and assessors to consider other potential land uses and possible future land uses for the site under assessment.

In essence this section focusses on the motivation for the preferred site, looking at the topics covered below:

Alternatives

Property on which the activity is undertaken

The site where the proposed project is located is owned by Phalane Community Trust, and has been leased to Mondi for the purposes of commercial timber. TK Investment Holdings (Pty) Ltd will lease the site from the Trust, with the proposed 27.59 HA released by Mondi Forest. The site is currently zoned Forestry, but will be rezoned to Core Mixed Use. The applicant has identified a need for the Shopping Centre on this node which is strategically located along the main transport networks of the Municipality.

One of the challenges that the uMhlathuze Local Municipality is facing is high rate of unemployment and general poverty, especially in the townships and rural areas of the city. Therefore, the construction of this Centre will go some way in meeting this endemic challenge.

The identified site is ideally located, and in line with the requirements for the site intended for a Shopping Centre. The site will not result in the displacement of any community. The size of this site is also acceptable providing enough space for parking.



Figure 1 - Google Earth Image showing an outline of the property within which the proposed development is located.

At this point in time, the Applicant has identified a need for the Shopping Centre that will service the people residing in this vicinity, and the greater municipal area and the District, and those travelling along the N2.

There were no alternative sites considered, although other alternatives as outlined below have been considered by the proposed project. This specific site has been chosen as a preferred site because of the following reasons:

- The site is ideally located and easily accessible in terms of the road network, and is likely to have an appeal to potential shoppers and motorists.
- The site is located in an area with no fatal infrastructural flaws in terms of electricity, roads, waste removal, waste water / sewerage, stormwater and portable water.
- The site is big enough, being 27.59 HAs in extent.
- The property is located near the busy N2, P535 and P106, meaning easy access through different modes of transport including public transportation, via private vehicles and by foot. This means easy access for potential customers to access required services and purchase required items.
- The site is already owned by the Phalane Community Trust, and this shows a strong sense of community ownership.

Type of activity undertaken

The Shopping Centre by its very nature requires a site that is huge enough to provide space for all shops that will form part of the development, as well as enough parking space for shoppers. The site has to be accessible to the consumers, and therefore its location within the well-established road network is pivotal. The proposed activity meets the requirements for the proposed Regional Centre.

Details of all the alternatives considered

The main role of alternatives is to find the most effective way of meeting the need and purpose of the proposed project, which can be through enhancing the environmental benefits of the proposed activity or by reducing or even avoiding potentially significant negative impacts to the environment.

There are several types of alternatives that have been put forward by different writers, yet not all alternatives may be necessarily be appropriate for each assessment process. It is therefore, important to focus on those that are most appropriate for the project in question. This talks directly to determination and analysis of alternatives that are relevant for the project being examined, in this instance Inkosi Phalane Shopping Centre.

The following alternatives are deemed relevant to this project:

Activity alternatives

This talks to a project alternative, which can be a change in the nature of the proposed activity as originally envisaged. As much as the site is zoned Forestry, however the Applicant with the support of the community trust has opted for the Shopping Centre due to the need and desirability of the proposed project. The activity is also not at odds with the municipal integrated development plan (IDP) which is a key planning document for the whole municipal area.

The activity is deemed suitable on this site from the planning, social, economic and environmental perspectives.

Location alternatives

The location of the site meets the requirements of a Shopping Centre in that it is located in an area with well-established road network. The area has no fatal flaws with regard to engineering services.

The site can be accessed by potential shoppers with ease. Some of the shoppers from the local area will be able to access the site on foot.

The location within the site has been changed through the site development plan to avoid sensitive portions on the southern tip of the site i.e. biodiversity constraints and aquatic theme.

There are instances where a private landowner wishes to develop land, which is privately owned as it is the case with this site. In such cases, alternative locations are not always practical, and other types of alternatives will assume importance.

It is against this background that there is no other site that has been identified and assessed with respect to this project. The identified location is seen as ideal based on the studies and discussions held with stakeholders regarding the placing of the Shopping Centre on this specific site.

Technological alternatives

This alternative talks to when the same goal is achieved by using a different method or technology as part of the proposed activity. In the scenario, the most benefit possible is achieved with less or no impact to

the environment. Technology to be used within the Centre will also include the use of surveillance systems for security purposes.

The buildings will have to comply with the National Building Standards and Regulations. Buildings will be constructed up to the SANS10400 standards. The proponent will take into account the various technologies available such as back up water harvesting and energy efficiency mechanisms during construction. It should be noted that consideration will be given to water and energy saving devices, where applicable. The applicant will also consider recycling during the operational phase of the project.

The project will also consider issues of climate change and green designs. It will also explore the use of solar, type of material to be used, water harvesting and buildings with natural lights.

Demand alternatives

The stakeholders have not suggested any possible alternative project that is in demand in this area and on this specific site. The area has been zoned Forestry for many years, which has not been directly benefiting the communities other than seasonal jobs. In fact the stakeholders unanimously supported the project during the consumer / shopper survey conducted on 23 and 24 January 2023. The surveys were administered in the major nodes within the market catchment area such as the Esikhaleni taxi rank, at the temporarily closed ESikhaleni Mall, OK express and at Total garages. Only people who worked or lived within the market area were eligible to answer the survey questions. (Esikhaleni 70%, 15% KwaDlangezwa) – 57% females, and 43% males.

The project was unanimously supported during the presentation done by the EAP at Mkhazazi Traditional Council on 25 July 2023 as per the attached attendance register.

Site layout alternatives

This alternative allows considerations of different spatial configurations of an activity within a particular site. In this instance, the original site development plan has been modified to avoid sensitive areas on site, and on the surrounding areas. The layout has been modified to avoid high sensitive area in terms of biodiversity and wetlands on the southern tip of the site. Other factors considered include findings of the traffic impact assessment in terms of access point, which has recommended its location at a distance of about 300 metres from the respective buffers. The proposed road upgrade at the intersection of P535 and P 106 will take the environmental buffers into consideration. The project has an obligation to prevent any environmental degradation, in particular the impact on water resources and biodiversity within and around this site.

The proposed final layout will offer the highest levels of biophysical and environmental benefits, as the hard surface, in conjunction with the proposed storm-water infrastructure, will manage water movement more effectively, and minimise erosion and possible sedimentation to the watercourses. The presence of the project provides an opportunity to conserve the biodiversity that is on site.

It can therefore be concluded from this perspective that the proposed location within the property is environmental and socially acceptable, with no serious fatal flaws identified. It is also not foreseen that the location will be too costly from the financial perspective. The stakeholders will also have an opportunity to comment on this draft report when it's circulated.

Scale alternatives

This alternative talk to the scale of the project whereby activities can be broken down into smaller units as opposed to a much larger project scale which may cause extensive impacts on the environment. In this instance the site is 27. 59 HAS, and the project will only use about 77 848m² of the site for this project.

Design alternatives

The design of the project will take the environmental considerations into account. The design and buildings will be in line with the prescripts of National Building Standards and Regulations. The design will take into consideration the aesthetics as prescribed by the local Municipality.

No go option / alternative

The no-go option is defined as an option of not undertaking the proposed activity and its inherent alternatives. This alternative assumes that the activity does not go ahead, meaning that the status quo with regards to the site will continue. The no-go option must take into consideration the outcomes / impacts of the proposed development considering both positive and negative impacts associated with construction and operation phase of the proposed development.

In a situation where negative environmental impacts have high significance, the no-go option takes on particular importance and centre stage. There are instances where the no-go option may be the only realistic alternative and then it becomes a major area of focus, and it assumes an important role. It is on the basis of this scenario that the no-go option has to be considered in all projects including Inkosi Phalane Shopping Centre.

In essence the no-go option provides the means to compare the impacts of project alternatives with the scenario of a project not going ahead. In evaluating the no-go option it is critical to take into account the implications of foregoing the benefits of the proposed project.

The proposed activity will contribute immensely in the local economic development of the area, and provision of sustainable jobs. The no-go option is not considered appropriate because it will hinder the envisaged local economic development. Furthermore, the unemployed will lose out in terms of potential job opportunities that are likely to be created by this development. This is particular true for the unskilled local people, especially during the construction phase. The local small businesses are also likely to benefit during the project construction phase, and without this project they are likely to lose out. The no go option will mean the loss of informal trading opportunities during construction phase of the project.

The Shopping Centre will play a very important role in the economy of uMhlatuze Municipality, King Cetshwayo District and the KwaZulu – Natal Province as a whole. The no-go option would therefore deprive the city a well needed revenue contributing to the prosperity of the area.

The no go option will deprive the people in the vicinity of this site to access job opportunities at a walking distance. Some of the locals may even exploit an opportunity for rental with regard to the workers who will be employed by the Shopping Centre who may be from far or who may need to work at night and require the nearby accommodation.

The economic profile of the general area will remain unchanged and will not be improved if this project implementation is abandoned. The proposed activity and facility will afford the local people an opportunity to be employed, and this will go some way in poverty reduction in the Region. If this option is not pursued the unemployed are likely to lose out in terms of potential job opportunities that are likely

to be created by this development. This is particularly true for the locals who are unskilled, as they stand a chance to be employed during the construction and operational phases. During the construction phase they will acquire certain skills.

The proposed development is aligned with the planning initiatives of uMhlathuze Municipality as articulated by the uMhlathuze IDP document, and is therefore considered a viable and sustainable development that will contribute to regional economic growth.

Other than the implications of foregoing the benefits of the proposed project, the no – go option must also provide means to compare the impacts of project alternatives with the scenario of a project not going ahead. In this instance this means the watercourses and biodiversity on and around the site will remain intact with not even the slightest chance of pollution polluting or impacting on them from the proposed project.

Although there may be some negative impacts during the two project phases, overall, the proposed development will have positive impacts with specific reference to the positive socio-economic impacts during both the construction and operational phases. With measures put in place and effectively implemented, the negative environmental impacts of the proposed development can be reduced to levels of low significance. It must also be taken into consideration that the 27.59 HA site is currently under commercial timber, with less environmental constraints other than those highlighted by this report. There are no fatal flaws that have been identified thus far. If this is weighed against the environmental mitigation measures, low significance detailed below, socio economic benefits it becomes evident that the project can proceed.

H. A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ALTERNATIVES WITHIN THE SITE, INCLUDING:

(i) Details of all the alternatives considered

The key criteria when identifying alternatives is that they should be practical, feasible, relevant, reasonable and viable. The stakeholders need to have been afforded an opportunity to make a meaningful contribution with regard to alternatives. This draft report is meant to do exactly that, i.e. to engage the stakeholders with regard to the project.

The impact of each of the alternatives need to have been considered. The evaluation should focus on a few preferred alternatives and should include a comprehensive comparison of all potential impacts, including biophysical, social and economic aspects. Once all the alternatives are identified, then the focus must shift to the few relevant ones, and those deemed inappropriate must be eliminated. The elimination process should be well documented and substantiated, with an explanation of why certain alternatives are not being considered in detail.

A detailed analysis of potential environmental impacts should be given for each of the remaining preferred alternatives, as well as a consideration of technical and financial aspects as they also have potential impacts.

Alternatives should then be screened to limit effort and cost associated with data collection and analysis. Screening should be based on criteria such as ability of technology to meet project objectives, availability

of resource requirements, location suitability and social acceptability. Once the shortlist of alternative technologies, is identified, the next step is to identify a range of alternative locations. The location alternatives should then be screened. Once a short list of options has been produced, each alternative should be evaluated.

The final step in the process is to comparatively assess the alternatives. Alternatives must be assessed and evaluated at a scale and level that enables adequate comparison with the proposed project. Assessment should focus on the potential impacts, both direct and indirect or cumulative, on the environment of all reasonable alternatives.

Methods for comparing alternatives range from very simple descriptive and non-quantitative methods, through methods based on varying levels of quantification to a full quantitative comparison, in which all impacts are expressed in monetary terms.

Irrespective of the method used, it is important to note that the alternatives are compared in terms of all potential biophysical, social and economic impacts, both positive and negative. The effectiveness of mitigation measures should also be included. Technical and financial criteria are also relevant. The same evaluation criteria should be used for all alternatives. The comparison should be systematic and well documented, with reasons for the preferred alternatives clearly outlined.

Where alternatives are required, they become important in the sense that alternatives are a basic integrated environmental management (IEM) principle. This project did not use any specific matrix to compare alternative sites as this was the only site available and owned by the Community Trust that has leased it to the Applicant for the purposes of this project. The initial desktop analysis of the site, and ultimately the physical assessment did not show serious impediments. The site has also been subjected to feasibility through various studies that include socio – economic assessment, geotechnical, biodiversity and aquatic assessment. These studies did not reveal any fatal flaw with regard to the proposed location within the site.

In the context of the foregoing, there was no need for a detailed identification and ranking of alternative candidate site and the ranking thereof. Furthermore, the chosen site within the property is not in conflict with the current municipal planning tools like the IDP.

The exact location chosen within the site / property has taken into consideration the position of the existing sensitivities. The proximity to the access point and engineering services. The convenient location of the Centre in relation to the road network does make economic sense.

Property on which the activity is undertaken

The property within which the proposed development is located is owned by Phalane Community Trust, thus the project is entrenched in the community. The property was selected for this project on the basis of its strategic location in relation to the road network being N2, P535 and P106. Therefore, locating it on the identified property make sense especially considering that the land owners did not have to go through land acquisition processes and costs as they already own the property.

Activity alternatives

As much as the site is zoned general Forestry, however the Applicant has opted for the Shopping Centre because of the benefits associated with the activity based on the feasibility study, which included the

customer / shopper survey as highlighted above. The activity is deemed suitable on this site from the social, economic and environmental perspective.

Location of the site

The positioning of the site within the property allows for easy access to the proposed Shopping Centre. The location of the site meets the requirements of a Shopping Centre of this magnitude i.e. GLA of 58 276m² for this Phase 1 as it were. The site is located within the well-established road network, and is accessible to potential shoppers with ease, some of the shoppers from the local area will be able to access the site on foot. The area has a reasonably well established engineering services.

The location within the site has been changed through the layout to avoid sensitive areas within the site.

Type of activity undertaken

According to the Socio economic / feasibility Study there are other centres however they are unlikely to pose a direct competition to this proposed Shopping Centre. Based on the experience of interacting with stakeholders and the feasibility study / socio economic assessment there is a market for the proposed development. In addition, the proposed development will also provide a significant number of employment opportunities which is a good opportunity for permanent positive socio-economic impact on the surrounding communities. The property is surrounded by rural areas and a nearby Esikhaleni Township. The location of a Shopping Centre in this area will allow people to be able to purchase essential items closer to their homes thus reducing the total travelling costs of accessing such essential food items.

Technological alternatives

The buildings will comply with the National Building Standards and Regulations. The proponent will take into account the various technologies available in terms of this project. For example the project is also exploring the use of solar energy with regard to energy supply.

Demand alternatives

The stakeholders unanimously supported the project during the customer / shopper survey as highlighted above. The feasibility study / socio – economic assessment has confirmed the market demand for a project of this nature, in this specific location.

Site layout alternatives

The first and the original site development plan has been adjusted several times based on the outcomes of different studies and stakeholder inputs. Among other changes has been the issue of avoiding the sensitive areas on the southern boundary of the site. The project has an obligation to prevent any environmental degradation, in particular the adverse impacts on the water resources and biodiversity within the site.

Scale alternatives

In this instance the site is 27.59 HAs in extent, whereas the site development footprint is 77 848m².

Design alternatives

The design and buildings will be in line with the prescripts of National Building Standards and Regulations. The design will take into consideration the aesthetic value that is expected as set by uMhlathuze Local Municipality.

No - go option alternative

The no-go option take into consideration the outcomes/impacts of the proposed development considering both positive and negative impacts associated with construction and operation phases of the proposed development.

Although there may be some negative impacts as identified by the environmental assessment, overall, the proposed development will have positive impacts with specific reference to the positive socio-economic impacts during both the construction and operational phases. The negative environmental impacts of the proposed development can be reduced to levels of low significance, as long as the mitigation measures articulated in the EMPr and recommendations of the Specialists studies are implemented to the letter.

The economic profile of the area will remain unchanged, and will not be improved if the project is abandoned. The proposed activity and facility will afford the local people an opportunity to be employed, thus reducing poverty. If the project is not pursued the unemployed are likely to lose out in terms of potential job opportunities that are likely to be created by this development. This is particularly true for the locals who are unskilled, as they stand a chance to be employed during the construction and operational phases. During the construction phase they are likely to acquire life-long valuable skills. The local small businesses are also likely to benefit during the project construction phase. The no go option will mean the loss of informal trading opportunities during construction phase of the project.

The no-go option would mean that the site remains intact in terms of its biodiversity. The mitigation measures put in place through the Environmental Management Programme are likely to result in the environmental improvement in the area, and on site.

i. Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs

The project is following the standard public participation process as contemplated under Regulation 41 of the 2014 EIA Regulations, as outlined below.

- The ward councilor of the area where the project is located i.e. ward 19 has been informed and fully briefed about the project. The BID was forwarded to the ward Cllr, and this draft report will also be furnished to him.
- Mkhwanazi Traditional Council is engaged at various levels on an ongoing basis about the project **(see attached minutes and attendance register – Appendix B (3)(i) and (ii).)**
- Site notices were erected on and around the site in isiZulu and English languages. Guidelines of the EIA Regulations and the Public Participation Guidelines were followed with regards to the size and other aspects of the site notices.
- The project has been advertised in the Zululand Observer newspaper (English) dated 10 August 2023 **(see attached Appendix B (2)).**
- The draft Basic Assessment will be circulated to all registered stakeholders, Interested and Affected Parties (I&APs) and state departments for the 30-day commenting period as part of the

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Public Participation Process. The comments received will be incorporated into the final BAR and EMPr and recorded in the comments and response report (**Table 7**), and also attached as Appendix B as well as proof of all other activities conducted as part of the public participation process.

ii. A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or reasons for not including them

The Draft BAR will be circulated to I&APs, stakeholders, and state departments as per the table (**Table 3**) below giving them the opportunity to comment on the proposed development. The comments received will be recorded in the comments and response report to be attached to this document as **TABLE 7**.

Table 3: Table showing identified stakeholders, I&APs and State Departments to be consulted and afforded an opportunity to comment on the proposed development.

Name of Organisation/Department	Contact Person	Contact Details
Department of Economic Development, Tourism & Environmental Affairs	Mr Muzi Mdamba	Department of Economic Development, Tourism & Environmental Affairs Next to sports complex in Veld en Vlei, corner Aloe & Loop Street Richards Bay 3900 Cell: 082 822 2582 Email: Muziwandile.Mdamba@kznedtea.gov.za
Ezemvelo KZN Wildlife	IEM Co-ordinator	P.O.Box 13053 Cascades 3202 (033) 845 1460 / 1739 / 1452
KwaZulu – Natal Amafa and Research Institute	Mr. John Pakwe	195 Langalibalele Street, Pietermaritzburg, 3201 (033) 394 6543
Department of Water & Sanitation	Ms. K. Methula	P.O. Box 1018 Durban, 4000 Tel: 031 336 2700 Email: Methulak@dws.gov.za
Department of Agriculture & Rural Development	Ms. Bongiwé Thabede / Mr. P Mans	Corner Link Rd and R102 Stanger Central, KwaDukuza, 4450 Cell: 076 941 2535 / Cedara Offices (DARD) Email: bongiwe.thabede@kzndrd.gov.za / petrus.mans@kzndrd.gov.za
KZN Department of Transport	Ms Judy Reddy	224 Prince Alfred Street Pietermaritzburg 3200 Tel: 033 355 8600 judy.reddy@Kzntransport.gov.za
uMhlathuze Local Municipality	Brenda Strachan	Private Bag X1004, Richards Bay,

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		3900 Tel: 035 907 5415 Email: Strachanb@umhlathuze.gov.za
King Cetshwayo District Municipality	Ntombizine Fikeni	9 Bronze Street Empangeni 3880 Tel: 035 799 1126 fikeni@kingcetshwayo.co.za
Department of Agriculture Forestry and Fisheries (DFFE) - (Forestry and Fisheries Regulation and Support Department)	Thabisile Xulu	185 Langalibalele Str. Pietermaritzburg 3200 Tel: 033 392 7722 / Email: txulu@environment.gov.za
Ward 19 Councilor	CLlr Mthiyane	(035) 907 5000
ESKOM	Samantha Naicker	Durban – New Germany 031 710 5183 / 072 957 1007 / KZNOU-L&R@eskom.co.za /NaickeSa@eskom.co.za

iii. The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects

Geographical and Physical Attributes

Land Use Character

The proposed site is currently under the commercial gum forest managed by Mondi Forest. Almost opposite the site across P106 road is a small Esikhawini Convenience Centre (OK Market). Further north of the site is a rural settlement of Gobandlovu. Just over a kilometer and a half from the proposed site is Esikhaleni Township.

It is proposed that the site will be rezoned to Core Mixed Use to accommodate the proposed development. The Project Planner is already working on the issues relating to rezoning, and the necessary sub-divisions as appropriate for the site.

Climate

uMhlathuze's climate is characterized by a warm to hot and humid subtropical climate, with warm moist summers. Average daily maximum temperatures range from 29 °C in January to 23 °C in July, and extremes can reach more than 40 °C in summer. The average annual rainfall is 1 228 mm and most (~80%) of the rainfall occurs in the summer, from October to March, although rainfall also occurs in winter (~20%).

Description of ecological baseline

Vegetation

The study area contains only one of the national vegetation types, namely the Maputaland Coastal Belt. According to the latest National Biodiversity Assessment (Skowno *et. al* 2018), this ecosystem has been afforded a threat status of "Endangered". Mucina and Rutherford (2006) states that this vegetation type occurs along a flat coastal plain originally probably densely forested in places with a wide range of interspersed non-forest plant communities including dry grasslands (which include palm veld where

special conditions prevail), hygrophilous grasslands and thicket groups. Today the vegetation landscape is composed of pockets of various forest types (separated into different vegetation units), thickets, primary and secondary grasslands, extensive timber plantations and cane fields.

The site Biodiversity and Vegetation is discussed in detail below.

Below is the photo showing the timber that is on site managed by Mondi Forest:

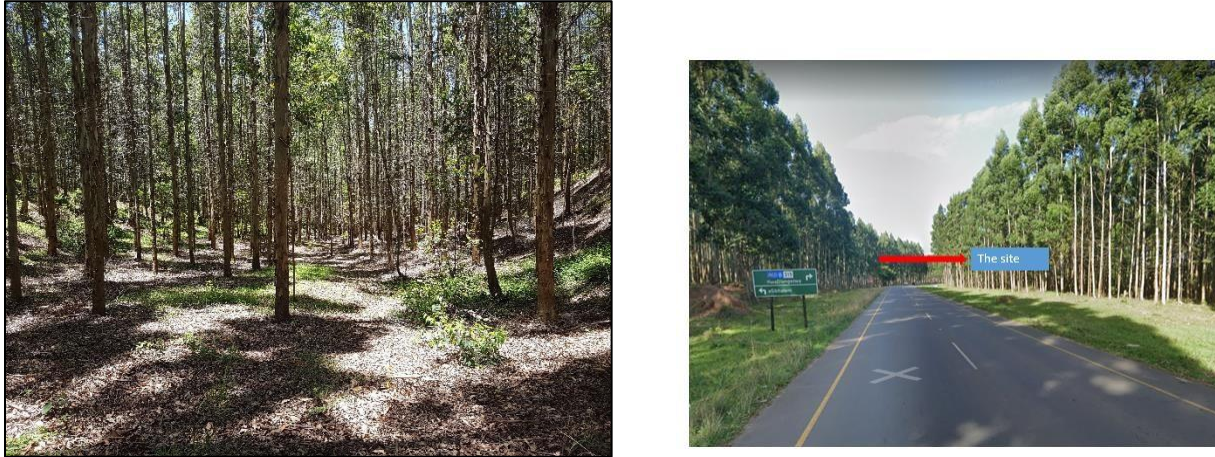


Figure 2 – commercial forest on site (left) and site viewed from P 106 road (right)

Fauna

According to the DFFE Screening Report produced for this project, the entire study area has been classified as having a medium sensitivity. During the site verification, it was found that proposed development footprint occurs within a highly modified area, with no natural habitat present on site.

The faunal details are captured in the Biodiversity report under Table 6 below.

Soil and Geology

The site was observed to be underlain by limited fill (man-made earth), colluvium (fine transported hill wash), aeolian (wind transported) deposits, and eluvium (leached intermittently water-bearing soils) which is detailed under p.5 of the report below.

The soil and geology of the site is summarized below, and discussed in detail in the report attached as **Appendix D5**.

Groundwater and Wetlands / Hydrology

Groundwater seepage was not observed in any of the inspection pits during the fieldwork. However, the water issues are discussed in detail below and in the report attached as **Appendix D1**.

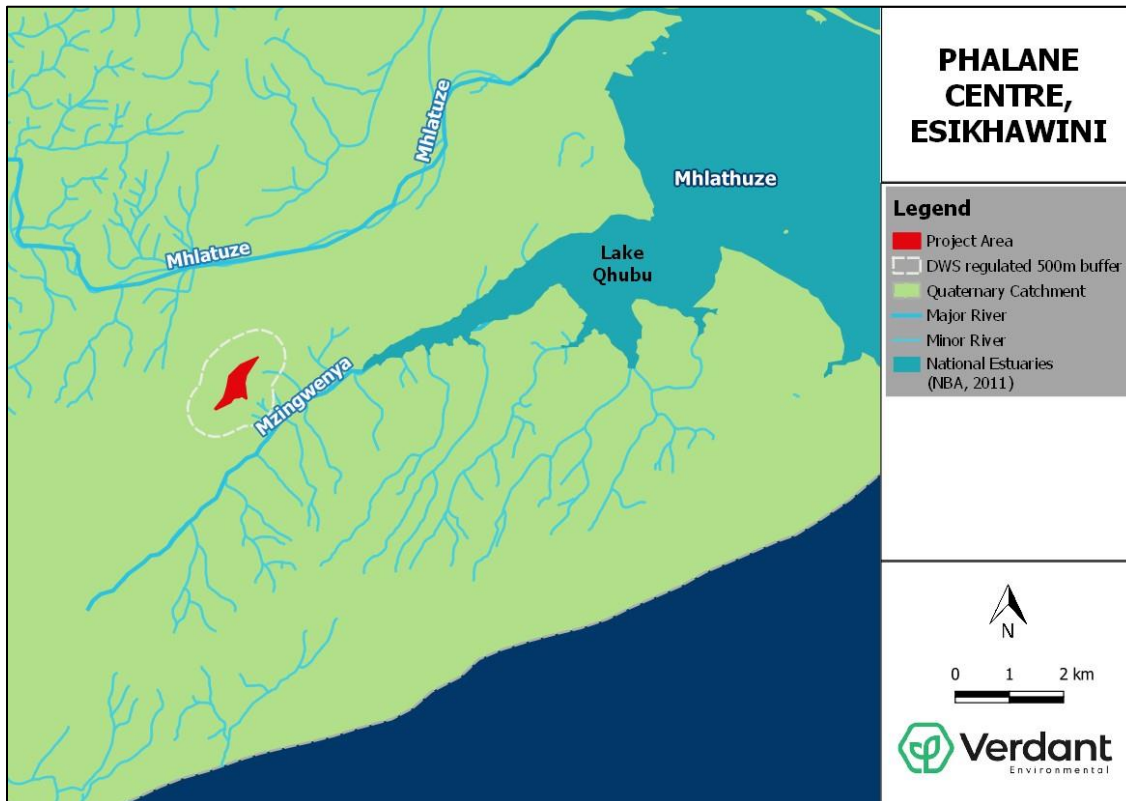


Figure 3 - 500m regulated zone and hydrological overview of the site and surrounding areas (Source: Aquatic & Wetland Ecosystem Impact Assessment Report, prepared by Verdant, March 2023)

Social attributes

The site is falling under ward 19 of uMhlathuze Local Municipality. In terms of the local municipal IDP, the population is estimated at 410 456 as per Community Survey 2016, although in terms of Census 2011 the total population was estimated at 334 459. The number of households increased from 86 609 in 2011 to 110 503 as per Community Survey 2016.

Economic attributes

The site is well located from a commercial market point of view and will be able to serve the local community and transient traffic. The project is expected to generate in excess of 4500 jobs.

The proposed development is fully in line with the development plans and objectives of uMhlathuze Local Municipality as discussed above. The proposed development contributes to the growth of the City through economic activity and employment creation.

Heritage, historical features, and cultural aspects

During the environmental team walk about, there was no heritage, historical or cultural features that were observed on site. The comments of KwaZulu – Natal Amafa Research Institute are still awaited.

iv. The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts –

(aa) can be reversed

The project will not traverse the identified wetlands, and areas of significant biodiversity as highlighted by the Biodiversity report.

(bb) may cause irreplaceable loss of resources

The project will avoid all sensitive areas identified by the Wetland and Biodiversity studies respectively. Therefore, there is no irreplaceable loss of resources expected to occur as a result of the proposed development. Furthermore, the project will put in place mitigation measures that will provide for the avoidance, reduction and remediation of impacts to ensure that the overall integrity of the environment is preserved to allow for continued ecosystem functionality.

(cc) can be avoided, managed or mitigated

Some impacts can be avoided such as avoiding the wetlands and vegetation on site. Mitigation measures will be implemented in line with the recommendations of the Specialists and the Environmental Management Programme.

Details of the impact rating tools

The table below shows the table of the impact significance rating scale that was used for assessing the impacts associated with the proposed development. The guidelines for the impact assessment process applied in compiling this document are outlined within Appendix 1 of the EIA regulations 2014, under which the requirements and objectives for a satisfactory manner to conduct an impact assessment process are outlined.

Table 4: Table showing significance rating scale.

SIGNIFICANCE VALUE	SIGNIFICANCE WEIGHTING	DESCRIPTION
<30	Low	This impact has a Low ecological significance, and does not impact on the decision to develop within the area.
30-60	Medium	Where the impact could influence the decision to develop in the area unless it is effectively mitigated.
>60 - 100	High	Where the impact must have an influence on the decision process to develop in the area.

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The significance ratings given in the table above took into consideration different factors such as extent of impact, nature of impact and duration of impact.

These are explained in the table below.

Component	Definition	
Magnitude	The intensity or size of the impact:	
	Small: No visual effects.	0
	Minor: Impact on processes.	2
	Low: Minimal effect on ecological processes	4
	Medium/Moderate: The environment is altered but is able to perform ecological processes in a modified state, despite being negatively affected.	6
	High: The ecological processes are altered such that they cease due to drastic changes to the structure and function of systems.	8
	Very high: The ecological processes severely altered and complete destruction of patterns and permanent cessation of processes.	10
Duration	The temporal scale / predicted lifetime of the impact:	
	Very short term: 0 - 1 years.	1
	Short term: 2 - 5 years.	2
	Medium term: 5 -15 years.	3
	Long term: > 15 years.	4
	Permanent: Will persist indefinitely unless mitigated.	5
Extent	Spatial scale of the impact	
	Specific to site of impact.	1
	Local scale: Immediate surroundings.	2
	Regional scale: Province related scale.	3
	National: Specific to country.	4
	International: World wide/global.	5
Probability	Likelihood of the impact occurring	
	Very improbable: Possibility that will likely never occur.	1
	Improbable: Some low possibility of occurrence.	2
	Probable: Distinct possibility.	3
	Highly probable: Most likely to occur.	4
	Definite: Impact will occur regardless of any prevention measures.	5

Impact Significance = (Magnitude + Duration + Extent) x Probability

Nature

Herewith impacts are classified as either direct, indirect or cumulative.

- **Direct impacts:** impacts usually caused from activities carried out on site that can only be monitored to be carried out within certain confines but cannot at all be avoided, i.e. clearing of vegetation in an area with vegetation.
- **Indirect impacts:** secondary impacts resulting from direct impacts, i.e. erosion resulting from destabilised soils that may have been caused by vegetation clearance.

- **Cumulative impacts:** impacts which could result during the life cycle of the project as a result of one or two impacts that are usually unnoticed as single elements.
- v. *The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives*

The factors and ranking scales indicated above were used for the assessment of potential impacts considering the scope of works and environment within and around the preferred site as this is the only site being considered for this application.

- vi. *Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects*

Positive impacts of the activity

Socio-economic benefits both during the construction and operational phase are the main positive impacts of the proposed development. The project is likely to shake the socio economic fundamentals in that it is likely to make far reaching permanent changes to the lives of the rural and township individuals for the better. In addition to temporary employment opportunities during the construction phase, the proposed development also promises a significant number of permanent employment opportunities during the operation phase of the development. Development of the Shopping Centre will benefit local residents from surrounding communities by providing a shopping facility within a short travelling distance to purchase required items.

Negative impacts of the activity

During the construction phase, vegetation will be cleared as part of site preparation activities. This will lead to loss of habitat mainly for small animals. The mitigation measures are already in place for the possible nesting habitats. A pre-construction walk-through must be conducted by the ECO to ensure that no new nests of (specifically *Stephanoaetus coronatus*) have been established within the development footprint. Furthermore, it has to be noted that buffers have been introduced to safeguard wetlands and biodiversity constraints. No negative impacts of the proposed development are expected to have any significant impacts on overall local, provincial and national biodiversity.

Impacts identified for the preferred site

Different aspects/activities that will be conducted as part of the proposed development which might lead to the impacts associated with the proposed development considering the project life cycle. These include but are not limited to:

- Removal of commercial timber, and stripping of topsoil, sub-soil and vegetation for the construction of the facility.
- Soil erosion during earthworks, construction and operational phases.
- Air pollution in the form of dust during construction.
- Soil contamination during construction and operational phases.

- Pollution of wetlands.
- Stockpiling.
- Location of construction camp.
- Littering and solid waste.
- Heritage objects, fossils and graves found during earthworks and / or chance finds.
- Concrete mixing.
- Alien plants - eradication that might invade the area after earthworks.
- Noise pollution during construction and operational phases.
- Traffic Management - the ingress and egress of vehicles and /or plant from site.
- Landscape visual impact.
- Health and Safety.
- Social and economic impacts.
- Decommissioning of the construction site camp and laydown area.

Impacts identified for the preferred site

The impacts associated with these activities have been tabulated below.

The EIA Regulations, 2014 as amended stipulates requirements that need to be adhered to and objectives to be reached when undertaking environmental impact assessment. Key to a successful EIA is the accurate identification of environmental and social impacts and the subsequent assessment of the likely significance of each impact. This will assist in facilitating the prioritization of impacts, the identification of fatal flaws and the identification of mitigation measures.

- vii. *An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures*

Table 5: Table showing some of the potential impacts that can be associated with the proposed development as well as proposed mitigation measures.

Activity	Resulting Impact	Proposed Mitigation
Pre-Construction Phase		
Failure to comply with environmental legislation/requirements of the EA	<ul style="list-style-type: none"> • Unlawful activities that could result in adverse impacts on the environment. • Penalties/fines could be incurred by the Developer • The proposed construction activities would have to be ceased and remedial action implemented. • Loss of species of conservation importance. • Failure to implement impact mitigation measures 	<ul style="list-style-type: none"> • An Environmental Control Officer must be appointed prior to the commencement of the proposed development. • Once appointed, the ECO must familiarize themselves with the EA, EMPr and any other Specialists studies and plans, and advise the Developer and or Contractor accordingly. • No form of on-site activity including site clearance may take place prior to notifying EDTEA of the commencement of the development.
Stripping of topsoil, sub-soil and	<ul style="list-style-type: none"> • Decreased topsoil quality resulting in lowered plant growth rate. 	<ul style="list-style-type: none"> • An ECO must be appointed throughout the various phases of the development.

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<p>vegetation for the construction of the facility.</p>	<ul style="list-style-type: none"> • Loss of indigenous species (flora & fauna). • Reduction in species diversity. • Habitat destruction and displacement of species. • Disruption to faunal movements and dispersal patterns. • Removal of species that are protected. • Impact to a Threatened Ecosystem. • Increased erosion. 	<ul style="list-style-type: none"> • A pre-construction walk-through must be conducted by a suitably qualified professional. This must be used to identify and count all individual tree species which may need transplanting or replanting. This include those that must be avoided during construction. • Sufficient time must be allowed to apply for permits for all protected plant species found on site. No construction may commence within these areas, where protected plant species exist but where no permits have been issued. • Topsoil monitoring (depth and soil testing) must take place prior to soil stripping and backfilling. The ECO must determine if the quality of soil is satisfactory, prior to backfilling. • Topsoil must be sequentially removed in accordance with the requirements on site. • All topsoil must be adequately stored: <ul style="list-style-type: none"> ▪ On a flat surface; ▪ Below two metres; ▪ Suitably covered if stored for prolonged periods of time. ▪ Separate from sub-soil and other stockpiles. ▪ Not near watercourses / wetlands. • The proposed layout to highlight all buffers i.e. application of 39m wetland and 40m biodiversity buffers. • No clearance of vegetation must be allowed to take place outside of the construction footprint. • A pre-construction walk through by a botanist must take place for accurate marking of species for removal and/ or translocation. • If any SCC or plant species high on the Red List are identified within the proposed footprint, effective rescue and relocation of them must be undertaken. • All temporary embankments that are considered sensitive to erosion must be adequately retained and supported (sandbags, fascine work, retaining blocks etc.).
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		<ul style="list-style-type: none"> • Silt traps must be used to control silt from being washed off site and into the surrounding watercourse or natural habitat. • All toilet facilities must be located outside of any sensitive area and must not be found within 50m of a watercourse / wetland. Regular servicing will prevent any spillages. • No faunal species must be killed or hunted during the project life-cycle.
Construction Phase		
Watercourse / Wetlands specific impacts		
Activity	Resulting Impact	Proposed Mitigation
Direct ecosystem destruction and modification impact	<ul style="list-style-type: none"> • Direct disturbance of wetlands on the southern area of the site by clearing and trenching. • Accidental direct impacts to wetland habitat and vegetation by heavy machinery during construction. • Degradation of wetland PES and loss of ecosystem services. 	<ul style="list-style-type: none"> • Easily mitigatable by avoiding locating infrastructure within wetlands and by implementing the wetland buffer zone as recommended. • Biodiversity buffer must also be observed as recommended.
Indirect hydrological and geomorphological impacts	<ul style="list-style-type: none"> • Fine, sandy/silty soils at the site will be relatively erodible if not properly managed, however, given the relatively gentle nature of the site, the risk of sediment mobilization can be reduced with proper onsite management. 	<ul style="list-style-type: none"> • Moderately mitigatable by ensuring activities remain outside of the wetland buffer zone and by administering practical measures onsite to avoid erosion/sedimentation. • The recommendations of the Geotechnical Study must be implemented.
Water quality impacts	<ul style="list-style-type: none"> • Pollution drainage lines and wetland ecosystems on and near the site, due to mismanagement of hazardous substances and/or improper maintenance of machinery during construction (e.g. oil and diesel leaks and spills). • Any erosion leading to sedimentation of wetlands could lead to raised water turbidity and suspended solids concentrations, affecting water quality. 	<ul style="list-style-type: none"> • Moderately mitigatable by ensuring activities remain outside of the recommended buffers by administering practical measures onsite to avoid any spills or sedimentation impacts. • Where spills or sedimentation impacts occur, these will need to be contained and mitigated. • The recommendations of the Aquatic and Wetland Study must be implemented.
Fragmentation and ecological disturbance impacts	<ul style="list-style-type: none"> • Reduced wetland size and modified wetland ecological connectivity will not take place where impacts are restricted to outside of the wetland areas and recommended buffers. • Expanded / more intense edge impacts could occur as a result of buffer zone encroachment, deterioration in vegetation quality 	<ul style="list-style-type: none"> • Moderately mitigatable by ensuring activities remain outside of the wetland buffer zone and by administering practical measures onsite to reduce noise and light pollution. • Edge impacts and alien plant infestation impacts can be quite easily remediated / rehabilitated should these occur.

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	<p>and cover. Potential for increased alien invasive plant invasion due to vegetation disturbance.</p> <p>Noise pollution and vibrations associated with earthworks and the use of heavy machinery could affect local wildlife (birds, amphibians and small mammals).</p> <ul style="list-style-type: none"> • Light pollution associated with construction crews, and the use of heavy machinery at night could affect locally occurring nocturnal wetland species, such as amphibians, however this would only be significant during certain times of the year (e.g. frog breeding season). 	
<p>Use and storing of potentially hazardous substances</p>	<ul style="list-style-type: none"> • Contamination of soil within and around the site; • Contamination of ground and surface water with seeping of contaminants into soil and pollution of runoff; • Potential health and safety risks with possibility of fire and other occurrences that can affect staff and surrounding community. 	<ul style="list-style-type: none"> • All hazardous substances must be stored on impermeable surfaces throughout the project life cycle. • Storage areas where flammable substances are kept must be equipped with serviced fire extinguisher. • No smoking must be allowed within or close to storage areas especially where flammable substances are kept. • Material Safety Data Sheets must be kept for all potentially hazardous substances. • All workers who will handle potentially hazardous substances must undergo applicable training and be provided with relevant safety clothing. • Emergency procedures must be known to all workers and must be made part of site induction/training. • All workers that handle potentially hazardous substances must be provided with the appropriate safety clothing.
Other Impacts		
Activity	Resulting Impact	Proposed Mitigation
<p>Use and storing of potentially hazardous substances</p>	<ul style="list-style-type: none"> • Contamination of soil within and around the site; • Contamination of ground and surface water with seeping of contaminants into soil and pollution of runoff; • Potential health risks with possibility of fire and other 	<ul style="list-style-type: none"> • All hazardous substances must be stored on impermeable surfaces throughout the project life cycle. • Storage areas where flammable substances are kept must be equipped with serviced fire extinguisher. • Emergency procedures must be known to all workers; and must be made part of site induction/training.

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	<p>occurrences that can affect staff and surrounding community.</p>	<ul style="list-style-type: none"> All workers that handle potentially hazardous substances must be provided with the appropriate safety clothing.
<p>The ingress and egress of vehicles and/or plant from site.</p>	<ul style="list-style-type: none"> Reduced photosynthesis of nearby vegetation due to dust settling on leaves; Trampling of vegetation outside of the development footprint due to vehicle movements; Compaction of fertile soils leading to reduced plant growth and soil quality; and Plant die-offs due to hydrocarbon spills from vehicles. Animal fatalities due to traffic related incidents. Displacement due to increased noise and vibrations. 	<ul style="list-style-type: none"> Traffic signs must be erected throughout the site, demarcating the following: <ul style="list-style-type: none"> Speed limits; Sensitive areas; and No-go areas Dust suppression must be implemented on all access roads. This practice must be carefully monitored by the ECO and all water usage must be recorded throughout the project lifespan. All temporary roads must be rehabilitated prior to the closure of the site e.g. backfilling of topsoil. Vehicles may only traverse designated areas and access roads. Heavy duty machinery must be stored in demarcated areas.
<p>Use of Plant/Machinery and Working at Height</p>	<ul style="list-style-type: none"> Safety risks associated with use of plant or machinery which would include: <ul style="list-style-type: none"> Injury to workers Injury to locals Injury risks where workers could fall from high levels Leakages/spills of hydrocarbons from plant/machinery will result in contamination of soil and surface water. 	<ul style="list-style-type: none"> A health and safety officer must be appointed for the proposed development to ensure that all safety standards are met from the onset. A safety representative must always be present on site for day to day monitoring of compliance and implementation of necessary measures to ensure safety of workers. The workers' training must include training on emergency procedures that should be followed in case of an emergency. All vehicles must be kept in good working condition. Any vehicles that are observed to be leaking must be serviced as soon as possible.
<p>Waste Management</p>	<ul style="list-style-type: none"> Failure to store and dispose of waste accordingly will result in pollution of the surrounding environment including nearby watercourses / wetlands. Burning or burning of waste on site would result in air emissions and groundwater contamination. Littering of waste around the site would have visual impacts on the area and negatively affect the appearance of the affected area. 	<ul style="list-style-type: none"> Wind and scavenger proof containers must be made available and used for on-site waste storage. Waste from containers must regularly be disposed of at the nearest landfill site that is permitted to handle and dispose of such waste. Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal. Workers must be trained to exercise environmentally friendly practices including proper disposal of waste.

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	<ul style="list-style-type: none"> • Dumping of waste within and around the site would also affect any animals that may occur within or close to the site. 	<ul style="list-style-type: none"> • Littering on or around the site must be strictly forbidden. • All forms of waste must not, under any circumstances, be dumped into the river near the site or any other watercourse/natural environment. • Burning and burying of waste is strictly forbidden.
Nuisance: Noise and dust	<ul style="list-style-type: none"> • Noise may be from construction vehicles, workers and construction works. • Dust will be as a result of earthworks on the site. 	<ul style="list-style-type: none"> • Construction works must be limited to working hours between 07:00am and 18:00pm. • Workers may not make any excessive/unnecessary noise within the site. • There may be no playing of loud music from the construction vehicles. • Construction vehicles must be kept in good condition to avoid excessive exhaust emissions and noise.
Socio-Economic	<ul style="list-style-type: none"> • Employment opportunities will be created for locals during the construction and operational phase of the proposed development. • Having the Shopping Centre located in this area may also stimulate other developments that would have a positive socio-economic impact on the whole node. 	<ul style="list-style-type: none"> • Terms of employment must be clearly explained to all workers during the different phases of the proposed development. • The Contractor and developer must avoid making promises to the community especially those that will be hard to keep. • The Contractor and Developer must consider giving some form of certification to workers for the skills they displayed during their employment period.
Post-construction		
Decommissioning of the construction site camp and laydown area.	<ul style="list-style-type: none"> • Spillages of oils fuels and chemicals causing the contamination of soils, surface and ground water; • Hardened/ compacted soils reduce the vegetation growth; • Reinstatement of sub-standard topsoil reduces the growth and success of indigenous vegetation; • Introduction of exotic species through uninformed re-vegetation efforts. • Exposed, unsupported soil being eroded and causing erosion gullies; • Unmanaged grazing by livestock, inhibiting successful rehabilitation practices; • Poor rehabilitation throughout the construction and defect liability period. 	<ul style="list-style-type: none"> • Rehabilitation must be conducted on site, by adequately backfilling topsoil and reinstating indigenous vegetation. • All access roads must be deep-ripped and adequately rehabilitated. • Rehabilitation of the site must be monitored by an ECO. • Natural berms and contours must be reinstated by the Contractor prior to the closure of site. • Fire-fighting equipment must be available on site at all times. • Spill kits must be available on site at all times. • No stockpiles must be left behind after the construction phase, but rather must backfill and/or removed from site.

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	<ul style="list-style-type: none"> Poor stormwater runoff, leading to erosion on site. 	
Operational Phase		
Watercourse / wetland specific impacts		
Activity	Resulting Impact	Proposed Mitigation
Direct ecosystem destruction and modification impacts	<ul style="list-style-type: none"> Direct impacts to wetland habitat and buffer vegetation by heavy machinery during infrastructure repair and maintenance activities (e.g. water and sewer pipelines). 	<ul style="list-style-type: none"> Easily mitigatable by ensuring maintenance activities are closely monitored and supervised to ensure no accidental incursions into wetland areas. Any accidental impacts can be potentially remediated / rehabilitated should these occur.
Indirect hydrological and geomorphological impacts	<ul style="list-style-type: none"> Erosion and/or sedimentation of onsite wetlands, with the main risk being as a result of catchment hardening, alteration of runoff and interflow patterns and stormwater management. The fine sandy/silty soils at the site will be relatively erodible if not properly managed, however, given the nature of the site, the risk of sediment mobilisation can be reduced with proper storm water management. Controlled discharge of 'clean' storm water could have a potential positive impact on the seep wetlands, through enhanced saturation levels and increased levels of permanent wetness which could enhance habitat quality should this be considered desirable. 	<ul style="list-style-type: none"> Moderately mitigatable by ensuring storm water is appropriately managed according to an adequate storm management plan implemented to specification. Any indirect impacts to wetlands can be potentially remediated / rehabilitated.
Water quality impacts	<ul style="list-style-type: none"> Potential accidental releases/spills from wastewater (sewer) pipelines and manholes through inadequate design, improper use of flush toilets (due to blockages) or other unforeseen events (such as release of stormwater into sewer system, leading to potential overflow from manholes). Any erosion leading to sedimentation of wetlands onsite and off-site could also lead to raised water turbidity and suspended solids concentrations, also affecting water quality. 	<ul style="list-style-type: none"> Moderately mitigatable by ensuring sewer infrastructure is appropriately designed and sized, with adequate protection and by ensuring proper use of flush toilets. Also, by ensuring maintenance activities are closely monitored and supervised to ensure there are no accidental incursions into wetland areas. Where spills or sedimentation impacts do occur, these will need to be contained and any affected water quality impact remediated, and the affected watercourses rehabilitated.

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	<ul style="list-style-type: none"> • Pollution of onsite wetlands due to the mismanagement of hazardous substances and/or improper maintenance of machinery during repair and maintenance activities (e.g. oil and diesel leaks). 	
<p>Fragmentation and ecological disturbance impacts</p>	<ul style="list-style-type: none"> • Expanded / more intense edge impacts could occur as a result of buffer zone encroachment, deterioration in vegetation quality and cover and the potential for increased alien invasive plant invasion due to disturbance. • Noise and light pollution associated with the operational site could affect local wildlife and especially nocturnal wetland species, such as amphibians, however this would only be significant during certain times of the year (e.g. frog breeding season). 	<ul style="list-style-type: none"> • Mitigating noise and light impacts will be difficult to enforce during the operation of the site, however lighting design to avoid casting light onto wetlands could be implemented. Edge impacts and alien plant infestation impacts can be quite easily controlled through maintenance activities within the wetland buffer zone.
<p>Utilisation of the facility</p>	<ul style="list-style-type: none"> • Adhoc clearing of vegetation during routine maintenance of the facility. • Harvesting of local indigenous fauna/flora for medicinal use. • Introduction of diseases through the failure to control pest animals. • Surface and groundwater contamination from contaminated runoff. • Sedimentation of wetlands through stormwater flow. • Pollution of surrounding environment due to poor waste management. 	<ul style="list-style-type: none"> • No-go areas should be sign posted and communicated to all staff. • Routine maintenance should be conducted along the proposed boundary fence. • All hazardous waste must be adequately stored and disposed of at suitable facility. • No dumping of waste must be allowed at any point in time. • All stormwater drains must comply with South African legislations to avoid water and soil contamination on the surrounding environment. • All materials such as fuel that may be stored on site during the operational phase must be stored accordingly to avoid leaks and spills into surrounding environment. • The Developer must maintain the area around the site and ensure that natural vegetation grows successfully and that there are no bare surfaces from which soil can be eroded. • All waste during the operational phase, must be disposed of accordingly either directly to a landfill site or through the Municipal waste collection system. • The associated takeaway outlet must follow applicable standards and guidelines for operation of food outlets including storage

		<p>and disposal of waste and old/used cooking oil.</p> <ul style="list-style-type: none"> • The medical suites / doctors rooms must dispose of their healthcare waste in line with legislation, and collection done by an accredited service provider.
Socio economic impacts	<ul style="list-style-type: none"> • Employment opportunities will be created for locals during the operational phase of the proposed development. • Having the Shopping Centre located in this area may also stimulate other developments that would have a positive socio-economic impact on the whole node. • Impact on other retail centres and their workforce. 	<ul style="list-style-type: none"> • Terms of employment must be clearly explained to all workers during the operational phase of the proposed development. • Procure construction materials, goods, and products from local and domestic suppliers where possible. • Proper assessment of impact to other retail centres, in order to understand the magnitude of possible impact on them and their workers. • The proposed development can for example complement, and not compete with Esikhaleni Mall and Esikhawini Convenience Centre.

viii. The possible mitigation measures that could be applied and level of residual risk

In the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact. The significance of environmental impacts has therefore been assessed considering any proposed mitigation measures.

- The components of the project structures must be positioned in such a way that less vegetation is affected during the construction phase, and sensitive portions of the site are avoided.
- Where trees need to be removed, the appointed Environmental Control Officer must be engaged to ensure that the correct procedure is followed for removal of indigenous trees.
- A search and rescue must be conducted with a botanical specialist in order to identify and transplant plant species of conservation concern should there be any.
- Unnecessary vegetation removal must be avoided through:
 - Clearly marking the site boundaries prior to the commencement of construction activities.
 - Areas beyond the site and construction area must be regarded as no-go zones.
 - Access to the site for construction vehicles must be designated and no construction vehicles should be allowed to access the site in any other way than the designated access.
- Erosion control measures must be implemented such as channeling water away from exposed areas, supporting bottom of stockpiled material/soil with sand bags or bricks or alternatively covering stockpiled material to protect it from rain; and taking all the steps necessary to ensure

that exposed surfaces are worked on as quickly as possible and not left bare for an extended period of time.

- The recommendations of the Geotechnical Study must be taken into consideration.
- All waste produced during the construction phase including rubble and general waste must be collected and disposed of at the nearest approved landfill site. Waste management must also be implemented during the operational phase.
- All hazardous substances must be stored on an impermeable surface during both construction and operational phases. Concrete mixing must take place on mixing boards or on liner.
- All areas that are not engineered which were cleared during the construction phase must be re-vegetated/grassed. Alien plant eradication must take place within and around the site during construction and operational phase.
- As many people as possible must be employed from the local community during both construction and operational phase. Where possible some form of certification of skills displayed must be given to the workers which could assist in obtaining other employment.
- Workers must be provided with the necessary safety equipment for tasks to be conducted during both the construction and operational phases.

Table 6: Impact Assessment for Potential Impacts

Impact and Risk	Duration	Extent	Probability	Magnitude	Significance	Mitigation	
Pre-Construction Phase							
Stripping of topsoil, sub-soil and vegetation for the construction of the facility.	Without Mitigation	3 Medium Term	3 Regional Scale	4 Highly Probable	8 High	56 Medium	<ul style="list-style-type: none"> • An ECO must be appointed throughout the various phases of the development. • A pre-construction walk-through must be conducted by a suitably qualified professional. This must be used to identify and count all individual protected plant species which must be applied for in a permit and translocated / avoided during construction. • Sufficient time must be allowed to apply for permits for all protected plant species found on site. No construction may commence within these areas, where protected plant species exist but where no permits have been issued. • Topsoil monitoring (depth and soil testing) must take place prior to soil stripping and backfilling. The ECO must determine if the quality of soil is satisfactory, prior to backfilling. • Topsoil must be sequentially removed in accordance with the requirements on site. • All topsoil must be adequately stored: <ul style="list-style-type: none"> ▪ On a flat surface; ▪ Below two metres; ▪ Suitably covered if stored for prolonged periods of time. ▪ Separate from sub-soil and other stockpiles. ▪ Not near watercourses • Amend the proposed layout to exclude all wetland habitat and apply a 30m buffer around the identified wetlands.
	With Mitigation	3 Medium Term	2 Local Scale	4 Highly Probable	6 Medium	44 Medium	

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Construction Phase							
Impact and Risk		Duration	Extent	Probability	Magnitude	Significance	Mitigation
The ingress and egress of vehicles and/or plant from site.	Without Mitigation	2 Long Term	2 Local Scale	3 Probable	4 Medium	24 Low	<ul style="list-style-type: none"> Traffic signs must be erected throughout the site, demarcating the following: <ul style="list-style-type: none"> Speed limits; Sensitive areas; and No-go areas / ecotones Dust suppression must be implemented on all access roads. This practice must be carefully monitored by the ECO and all water usage must be recorded throughout the project lifespan. All temporary roads must receive rehabilitation prior to the closure of the site (deep-rip, backfilling of topsoil). Vehicles may only traverse designated areas and access roads. Heavy duty machinery must be stored in allocated areas and not left out in open spaces.
	With Mitigation	2 Medium Term	1 Local Scale	3 Probable	2 Low	15 Low	
Use, Handling and Storage of Hazardous Substances	Without Mitigation	2 Short Term	2 Local Scale	3 Probable	6 Medium	30 Medium	<ul style="list-style-type: none"> All hazardous substances must be stored on impermeable surfaces throughout the project life cycle. Storage areas where flammable substances are kept must be equipped with serviced fire extinguisher. Emergency procedures must be known to all workers and must be made part of site induction/training. All workers that handle potentially hazardous substances must be provided with the appropriate safety clothing.
	With Mitigation	1 Very Short Term	1 Site Specific	1 Very Improbable	2 Minor	4 Low	
Use of Plant/Machinery and Working at Height	Without Mitigation	2 Short Term	2 Local Scale	3 Probable	6 Medium	30 Medium	<ul style="list-style-type: none"> A health and safety officer must be appointed for the proposed development to ensure that all safety standards are met from the onset. A safety rep must always be present on site for day to day monitoring of compliance and implementation of necessary measures to ensure safety of workers. The workers' training must include training on emergency procedures that should be followed in case of an emergency.
	With Mitigation	1 Very Short Term	1 Site Specific	1 Very Improbable	2 Minor	4 Low	

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Impact and Risk		Duration	Extent	Probability	Magnitude	Significance	Mitigation
Waste Management	Without Mitigation	3 Medium Term	2 Local Scale	4 Highly Probable	6 Medium	44 Medium	<ul style="list-style-type: none"> All vehicles must be kept in good working condition. Any vehicles that are observed to be leaking must be serviced as soon as possible. Wind and scavenger proof containers must be made available and used for on-site waste storage. Waste from containers must regularly be disposed of at the nearest landfill site that is permitted to handle and dispose of such waste. Waste disposal certificates/waybills must be kept on file as proof of safe waste disposal. Workers must be trained to exercise environmentally friendly practices including proper disposal of waste. Littering on or around the site must be strictly forbidden. Any and all forms of waste must not, under any circumstances, be dumped into the river near the site or any other watercourse/natural environment. Burning and burying of waste is strictly forbidden.
	With Mitigation	1 Very Short Term	1 Site Specific	2 Improbable	2 Minor	8 Low	
Nuisance: Noise and dust	Without Mitigation	2 Short Term	2 Local Scale	4 Highly Probable	2 Minor	24 Low	<ul style="list-style-type: none"> Construction works must be limited to working hours between 07:00am and 04:30pm. Workers may not make any excessive/unnecessary noise within the site. There may be no playing of loud music from the construction vehicles. Construction vehicles must be kept in good condition to avoid excessive exhaust emissions and noise.
	With Mitigation	1 Very Short Term	1 Site Specific	3 Probable	2 Minor	12 Low	
Socio-Economic	Without Mitigation	1 Very Short Term	2 Local Scale	5 Definite	6 Medium	45 Medium	<ul style="list-style-type: none"> Terms of employment must be clearly explained to all workers during the different phases of the proposed development. The Contractor and developer must avoid making promises to the community especially those that will be hard to keep.
	With Mitigation	1 Very Short Term	2 Local Scale	5 Definite	8 High	55 Medium	

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							<ul style="list-style-type: none"> The Contractor and Developer must consider giving some form of certification to workers for the skills they displayed during their employment period. At any stage appropriate, the developer may contribute to a community project which may be collectively identified.
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Post Construction Phase

Impact and Risk		Duration	Extent	Probability	Magnitude	Significance	Mitigation
Decommissioning of the construction site camp and laydown area.	Without Mitigation	2 Short Term	2 Local Scale	3 Probable	4 Low	24 Low	<ul style="list-style-type: none"> Rehabilitation must be conducted on site, by adequately backfilling topsoil and reinstating indigenous vegetation. All access roads must be deep-ripped and adequately rehabilitated. Rehabilitation of the site must be monitored by an ECO. Natural berms and contours must be reinstated by the Contractor prior to the closure of site. Fire-fighting equipment must be available on site at all times. Spill kits must be available on site at all times and must be suitably equipped to deal with spills. Stockpiles must be cleared of IAPS and this must be checked before infill. No stockpiles must be left behind after the construction phase, but rather must backfill and/or removed from site.
	With Mitigation	1 Very Short Term	2 Local Scale	3 Probable	2 Minimal	15 Low	

Operational Phase

Impact and Risk		Duration	Extent	Probability	Magnitude	Significance	Mitigation
Utilisation of the facility	Without Mitigation	5 Permanent	2 Local scale	3 Probable	6 Medium	39 Medium	<ul style="list-style-type: none"> No-go areas should be sign posted and communicated to all staff. Routine maintenance should be conducted along the proposed boundary fence. All hazardous waste must be adequately stored and disposed of at suitable facility.
	With Mitigation	5 Permanent	1 Site Specific	3 Probable	2 Minor	24 Low	

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							<ul style="list-style-type: none"> No dumping of waste must be allowed at any point in time. All stormwater drains must comply with South Africa legislations to avoid water and soil contamination on the surrounding environment. All materials such as fuel that may be stored on site during the operational phase must be stored accordingly to avoid leaks and spills into surrounding environment. The Developer must maintain the area around the site and ensure that natural vegetation grows successfully and that there are no bare surfaces from which soil can be eroded. All waste during the operational phase, must be disposed of accordingly either directly to a landfill site or through the Municipal waste collection system. <p>The associated takeaway outlet must follow applicable standards and guidelines for operation of food outlets including storage and disposal of waste and old/used cooking oil.</p>
Socio economic impacts	Without Mitigation (positive)	5 Permanent	3 Regional Scale	5 Definite	6 Medium / Moderate	70 High	<ul style="list-style-type: none"> Terms of employment must be clearly explained to all workers during the operational phase of the proposed development. The project can consider a social investment policy to contribute to the community. Proper assessment of impact to other retail centres, in order to understand the magnitude of possible impact on them and their workers. The proposed development can for example complement, and not compete with Esikhaleni Mall and Esikhawini Convenience Centre.
	With mitigation (positive)	5 Permanent	3 Regional Scale	5 Definite	6 Medium / Moderate	70 High	
	Without Mitigation (negative)	3 Medium	2 Local	2 Improbable	4 Low	18 Low	
	With mitigation (negative)	2 Short term	2 Local	2 Improbable	2 Minor	12 Low	<ul style="list-style-type: none"> Proper assessment of impact to other retail centres, in order to understand the magnitude of possible impact on them and their workers.

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							<ul style="list-style-type: none"> The proposed development can for example complement, and not compete with Esikhaleni Mall and Esikhawini Convenience Centre.
Fragmentation and ecological disturbance impacts	Without Mitigation	2	3	3	4	27 Medium	<ul style="list-style-type: none"> Mitigating noise and light impacts will be difficult to enforce during the operation of the site, however lighting design to avoid casting light onto areas beyond the site may be implemented. Edge impacts and alien plant infestation impacts can be quite easily controlled through maintenance activities. Edge effects whilst unavoidable should be carefully controlled by applying mitigation techniques early, and loss of ecosystem function should be controlled by careful monitoring and avoidance of any activities from taking place outside of the proposed development footprint.
	With Mitigation	1	2	2	2	10 Low	

Considering the tables above, the average significance of potential impacts of the proposed development without mitigation is **Medium** and the average significance when considering implementation of mitigation measures is **Low**. It is therefore important that the implementation of the proposed development is closely monitored to assess and monitor compliance levels on the site and take necessary measures if compliance is not at satisfactory levels to successfully mitigate against potential impacts. In the absence of implementation of the mitigation measures, the proposed development can have increased impacts, especially on wetlands and biodiversity.

Average Impact Significance Without Mitigation	35.9 Medium
Average Impact Significance with Mitigation	22.8 Low

All impacts identified can be mitigated against with no irreversible damage caused to the receiving environment and the community. There is also no anticipated loss of replaceable resources, given the recommendations of wetlands and biodiversity buffers on site. The EAP's view is that the socio-economic benefits of the proposed development outweigh the potential environmental impacts.

I. WHERE APPLICABLE, A SUMMARY OF THE FINDINGS AND IMPACT MANAGEMENT MEASURES IDENTIFIED IN ANY SPECIALISTS REPORT COMPLYING WITH APPENDIX 6 TO THESE REGULATIONS AND AN INDICATION AS TO HOW THESE FINDINGS AND RECOMMENDATION WERE INCLUDED IN THE FINAL REPORT; -

The following are the specialist studies that were recommended through the screening tool. Where applicable, reasons have been given for not undertaking certain specialist studies which had been recommended as per the screening tool. The summary findings of the studies conducted is outlined below.

Landscape / Visual Impact Assessment

The area within which the proposed development is located is currently under commercial timber with Esikhaleni Convenience Centre nearby. The settlement of Gobandlovu is also located north of the site, with Esikhaleni Township at a distance of about 1.2 km.

Looking at the character of the area, it is not expected that the proposed development will have significant visual impact on the landscape. Therefore, no visual impact assessment has been conducted. The EAP's view is that it is not necessary.

Archaeological and Cultural Heritage Impact Assessment and Paleontology Impact Assessment

During the site walk about, the EAP did not observe any heritage objects nor graves on site, however, this draft report has been submitted and uploaded to the KwaZulu – Natal Amafa Research and Institute SAHRIS programme for the entity's formal comments.

Aquatic & Wetland Ecosystem Impact Assessment Report for the proposed Inkosi Phalane Shopping Centre Project prepared by Verdant dated March 2023 - (Appendix D1)

The scope of work completed as part of this assessment was as follows:

- Undertake a desktop review of the biophysical setting and freshwater ecosystem conservation planning context of the project site.
- Undertake the desktop mapping of all watercourses (i.e. stream / river channels, riparian areas, wetlands, dams etc.) within a 500m radius of the project activities.
- Undertake a watercourse 'likelihood of impact' assessment to identify the rivers and wetlands to be measurably negatively affected by the proposed project activities.
- Infield delineation of all wetlands and rivers (riparian zones) that stand to be measurably negatively affected by the proposed project activities occurring within 500m of the development activities.

- Subdivision of the desktop and infield delineated wetlands and rivers into definable resource / hydrogeomorphic (HGM) units and the classification of these units according to the national aquatic and wetland ecosystem classification system (Ollis et al., 2013).
- Provision of a description of the key biophysical characteristics of the infield delineated rivers and wetlands (i.e. soils, vegetation and hydrology) based on the infield sampling and data collection.
- Assessment of the Present Ecological State (PES) of the infield delineated rivers and wetlands.
- Assessment of the supply, demand and importance of the direct and indirect ecosystem services provided by the infield delineated wetlands and riparian zones.
- Assessment of the Ecological Importance and Sensitivity (EIS) of the infield delineated rivers and wetlands.
- Determination of the recommended ecological category (REC) recommended management objectives for each of the river and wetland units assessed.
- Identification, description and assessment of the direct and indirect impacts of the proposed project on local rivers and wetlands.
- Assessment of the risk of potential impact to freshwater ecosystems (rivers and wetlands).
- Provision of project design, construction phase and operational phase mitigation measures to avoid, minimize and/or rehabilitate the potential impacts.

The field assessment for data collection was conducted in November 2022, using the sampling methods and analysis as outlined under p. 11 of the report.

The study area is located at the head of a drainage line within a low-lying linear palaeo-dune depression that comprises a seep wetland that hosts coastal forest and swamp forest. The actual system drains into the downstream Mzingwenya River that drains in an easterly direction into the freshwater lake, Lake Cubu, which itself then drains into the Mhlathuze River estuary to the east, a nationally important estuary. The Mzingwenya River is located on the Zululand Coastal Plain (Partridge et al., 2010) and has formed within low-lying linear palaeo-dune depressions that intercept the regional groundwater table during all or part of the year.

The National Wetland Map (Van Deventer et al., 2018) does not indicate the presence of any wetlands within the study area. However, the uMhlathuze Estuary is flagged 465m to the south-east of the site just on the edge of the DWS regulated 500m buffer zone. In addition, number of seeps ~1km to the south-east and a large floodplain wetland along the Mhlathuze River ~ 550m to the north-east. Based on the National Wetland Map V5, seep wetlands of the type identified near the study area are considered 'Critically Endangered' at a national level according to Van Deventer et al. (2018), as are floodplain wetlands, while the estuary is considered 'Endangered' at a national level according to Van Deventer et al. (2018).

Below is the map showing the "likelihood of impact" relating to rivers and wetlands:

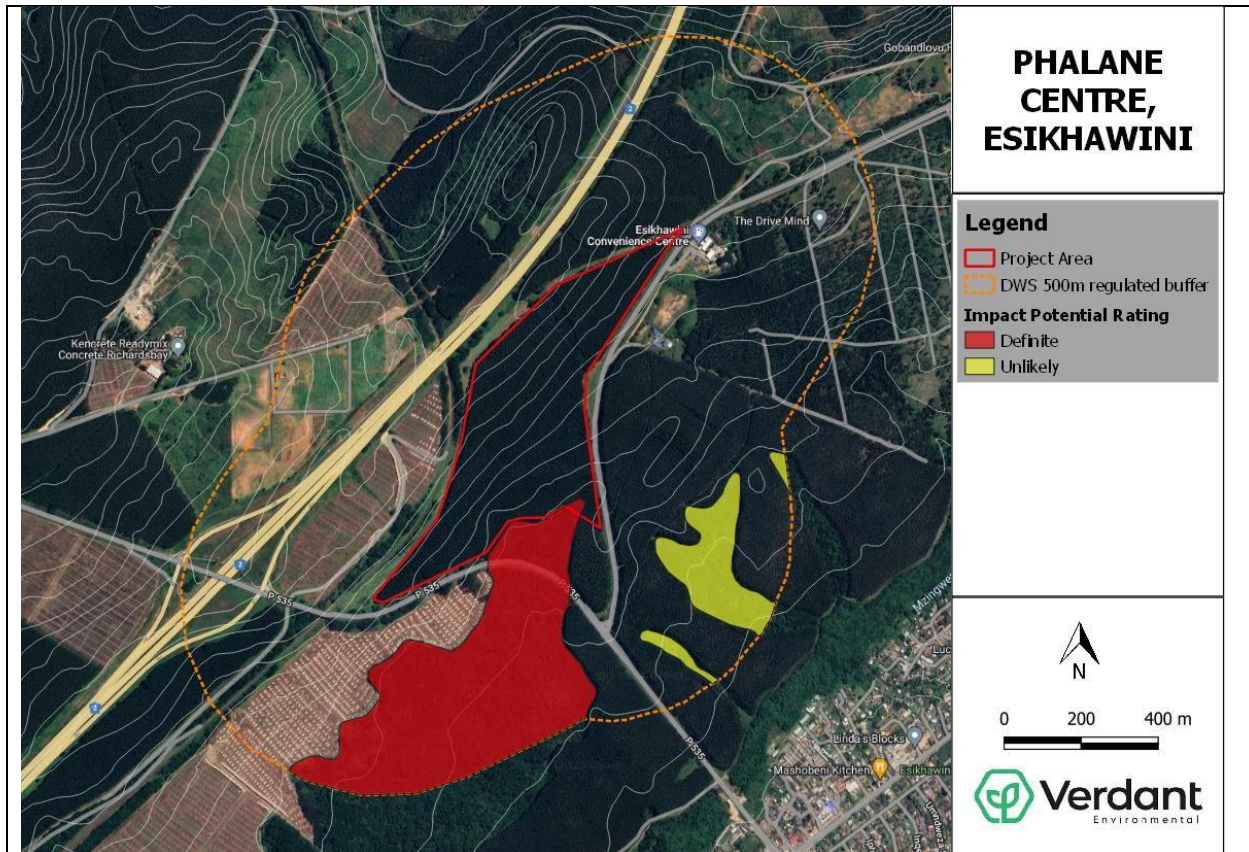


Figure 4 - (Source: Aquatic & Wetland Ecosystem Impact Assessment Report, prepared by Verdant, March 2023)

The wetland remains in a fair condition due to limited “within-wetland” impacts, and intact vegetation composition. “within-wetland” impacts are very localised and confined to areas impacted by the existing road crossing, both infilling and upstream flow impoundment, as well as some of the wetland margins that have been cleared for Eucalyptus plantations.

The most prominent and intense impacts are the indirect impacts of the surrounding Eucalyptus plantations on catchment and wetland hydrology, which is predicted to have resulted in a measurable draw-down of perched water tables and reduced subsurface water inputs to the wetland system.

The report has recommended some buffers as part of the watercourse management strategy. Buffer zones, are simply defined as strips of vegetated undeveloped land typically designed to act as a protective barrier between human activities and sensitive habitats such as wetlands, rivers and forests.

These buffers are important in performing a wide range of functions such as sediment trapping and nutrient retention, and in doing so, play an important role in protecting water resources from the adverse impacts that are typically associated with various land-uses and developments. The application of buffers is aligned with the principles of the National Water Act (1998), which is to provide for the sustaining of water quality and preserving natural aquatic habitats and ecosystem functions.

The recommended buffer in this regard is 39m wetland buffer zone. It is important that the recommended buffer/no-go area is incorporated into the design and planning of the proposed

development so that all planned structures are located outside this no-go area. Below is the extent of the recommended wetland buffers:

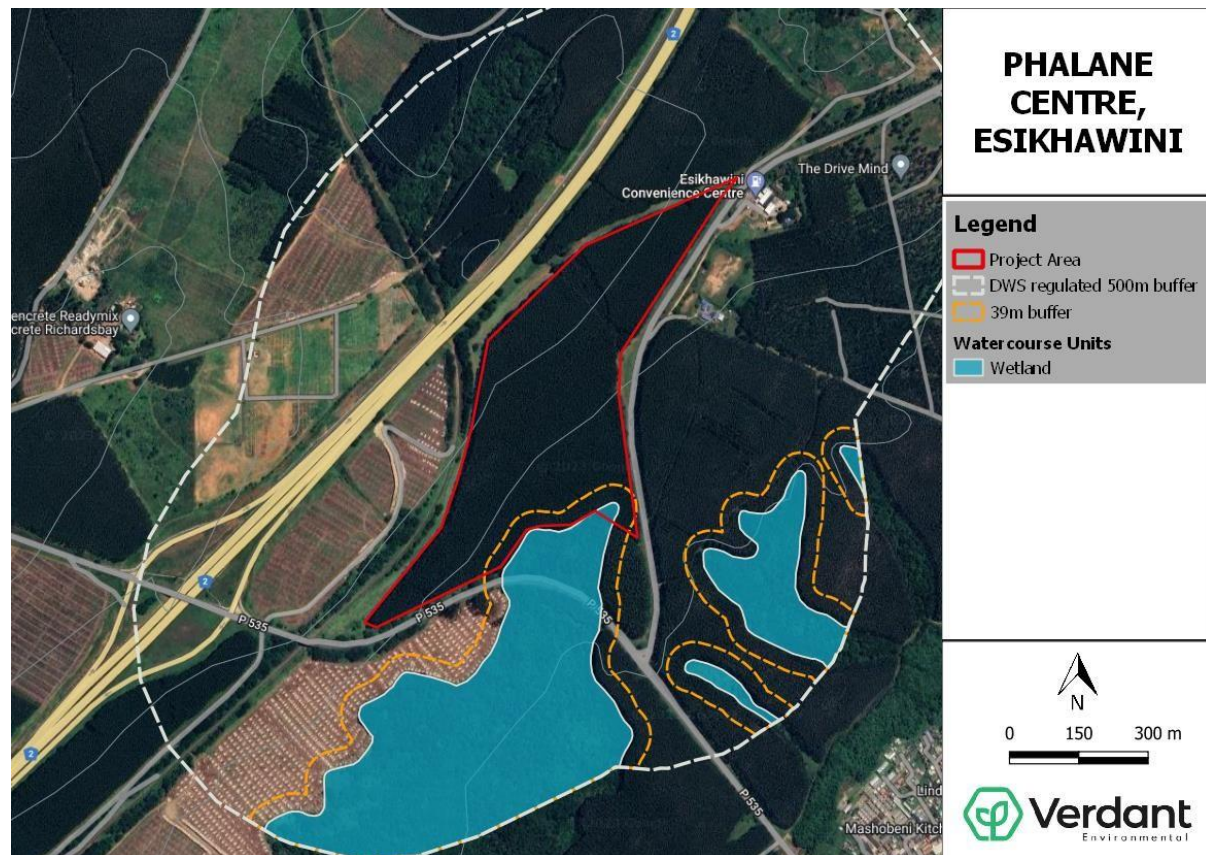


Figure 5 - (Source: Aquatic & Wetland Ecosystem Impact Assessment Report, prepared by Verdant, March 2023)

It is also important to note that the buffer tool is based on the stressors arising from diffuse runoff and interflow, and very localised concentrated surface flow conditions. Buffers do not apply to and cannot mitigate the stressors of point source stormwater discharges. Additional specific mitigation will need to be applied to minimise the intensity of the stressors and mitigate the risks of point source stormwater discharges. It is recommended that the stormwater management plan takes the recommendations of this report into consideration as outlined and accordingly detailed.

Prior to the commencement of any construction activities, the outer edge of the 39m buffer zone of the wetlands must be staked out by a surveyor and demarcated using brightly coloured shade cloth. All areas within / inside the 39m buffer zone must be considered no-go areas for the entire construction phase.

The demarcation work must be signed off by the Environmental Control Officer (ECO) and the contractor before any work commences. The demarcations are to remain until construction and rehabilitation is complete.

The combined wetland and aquatic ecological assessment identified a seep wetland unit in the south-eastern edge of the development site and extending further downstream. The baseline assessment

revealed that the wetland was found to be in fair condition ('C' PES) and is considered of Moderately High Ecological Importance and Sensitivity (EIS).

All the recommendations of the report will be incorporated into the project Environmental Management Programme (EMPr).

Terrestrial Biodiversity Impact Assessment prepared by Afzelia dated March 2023 (Appendix D2)

The broad scope of the study:

- Review the available project related information;
- Undertake a desktop assessment of the study area;
- Conduct a site verification to confirm the site sensitivity;
- Produce a Terrestrial Biodiversity Compliance Statement which either collaborates with the findings of the Department of Forestry, Fisheries and Environmental Affairs (DFFE) online screening report; or
- Produce a Terrestrial Biodiversity Compliance Statement, which provides an updated site sensitivity statement for the study area.

The Terrestrial Biodiversity Specialist undertook the site verification on 21 November 2022. During this assessment it was found that the study differs from the designation of "Medium" Plant Species Sensitivity and "Medium" Animal Species Sensitivity shown by the screening tool. As such a terrestrial biodiversity (faunal and floral) compliance statement has been undertaken in line with the "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Sections 24(5)(A) and 44 of the National Environmental Management Act (NEMA; Act No 107 of 1998) when Applying for Environmental Authorisation, dated 20 March 2020".

The specialist conducted a site verification on 21 November 2022. This assessment was used to verify the presence or absence of species predicted to occur on the site, and record any habitat which may occur within the study area. The assessment has been carried out during an ideal season (spring) and after notable rainfall had fallen within this region, stimulating growth.

The site was first surveyed at a desktop level, using Google Earth imagery and then divided into areas of specific vegetation communities as per stratified random sampling methodology. Each of these vegetation communities were assessed during the field assessment. For sampling of flora and fauna, timed meanders were used until no new species were recorded within each community as guided by rapid assessment best practice. The entire site was accessible on foot, and therefore no access related limitations were recorded. For the purposes of this study, faunal data collected during the field assessment makes use of opportunistic sightings as well as evidence of faunal activity (where applicable):

- Spoor (tracks);
- Dung;
- Burrows; and
- Alarm and/or breeding calls.

The lack of suitable habitat in conjunction with the absence of animal spoor and as the site is located within an existing timber plantation, the specialist is confident that passive monitoring techniques (such as camera traps) are not required. No additional monitoring has been recommended.

The site sensitivity has been assessed according the “Species Environmental Assessment Guidelines” produced in 2020 by South African National Biodiversity Institute (SANBI). The habitats and species of conservation concern in the project area were assessed based on their conservation importance, functional integrity and receptor resilience.

The site itself is not located within any Critical Biodiversity Areas (CBAs) or Ecological Support Areas. The nearest CBA is located approximately 200 m from the boundary of the site, in a southerly direction and is associated with forest habitat. The proposed development will have no direct impact on this habitat and therefore will not be discussed any further.

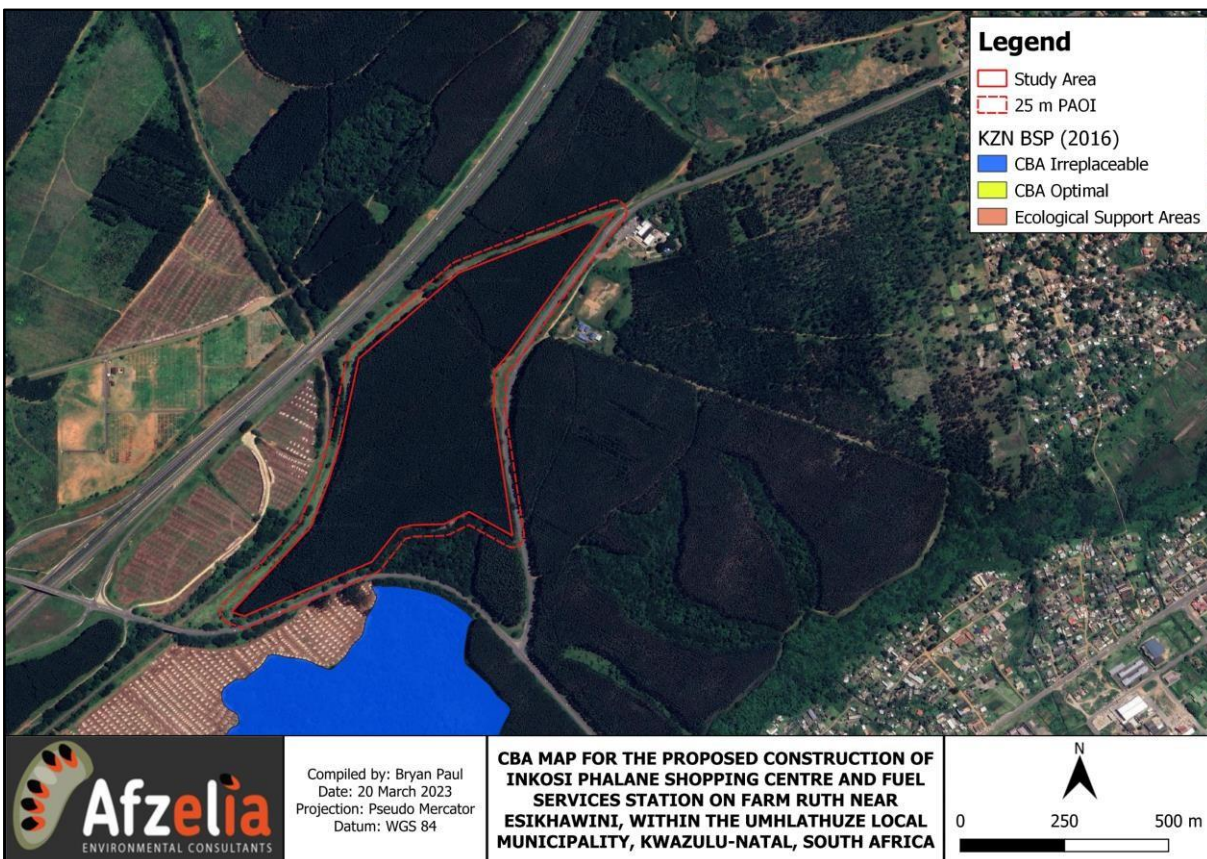


Figure 6 – (Source: Terrestrial Biodiversity Compliance Statement prepared by Afzelia, dated March 2023, showing areas of conservation importance within the study area)

This Basic Assessment report will also be circulated to Ezemvelo KZN Wildlife and King Cetshwayo District Municipality for their comments.

According Figure 7 of the report, proposed development footprint does not overlap with any formally protected areas, or areas of conservation concern (such as Important Bird and Biodiversity Areas - IBAs or National Protected Area Expansion Strategy - NPAES Focus Areas). The Umlalazi Nature Reserve (12 km) and The Richards Bay Game Reserve (11.5 km) are located in the vicinity of the study area.

The study area contains only one of the national vegetation types, namely the Maputaland Coastal Belt. According to the latest National Biodiversity Assessment (Skowno *et. al* 2018), this ecosystem has been afforded a threat status of “Endangered”. Mucina and Rutherford (2006) states that this vegetation type occurs along a flat coastal plain originally probably densely forested in places with a wide range of interspersed non-forest plant communities including dry grasslands (which include palm veld where special conditions prevail), hygrophilous grasslands and thicket groups. Today the vegetation landscape is composed of pockets of various forest types (separated into different vegetation units), thickets, primary and secondary grasslands, extensive timber plantations and cane fields. The belt of the Indian Ocean Coastal Belt (IOCB) immediately inland (only a few kilometres wide) and parallel to the line of Northern Coastal Forest has a characteristic appearance of very irregular dunes with generally open vegetation and *Syzygium cordatum* dotted prominently on the dunes, with many irregular dune slacks interspersed. There is little to suggest that this part of the vegetation, e.g. between Lake Sibaya and Kosi Lake, is secondary.

The rest of the vegetation types i.e. Northern Coastal Forest, Subtropical Alluvial vegetation and Swamp Forest are located outside of the site itself. The Swamp Forest is very close on the southern portion of the site, from the site boundary near P 535 and stretching southwards across the road.

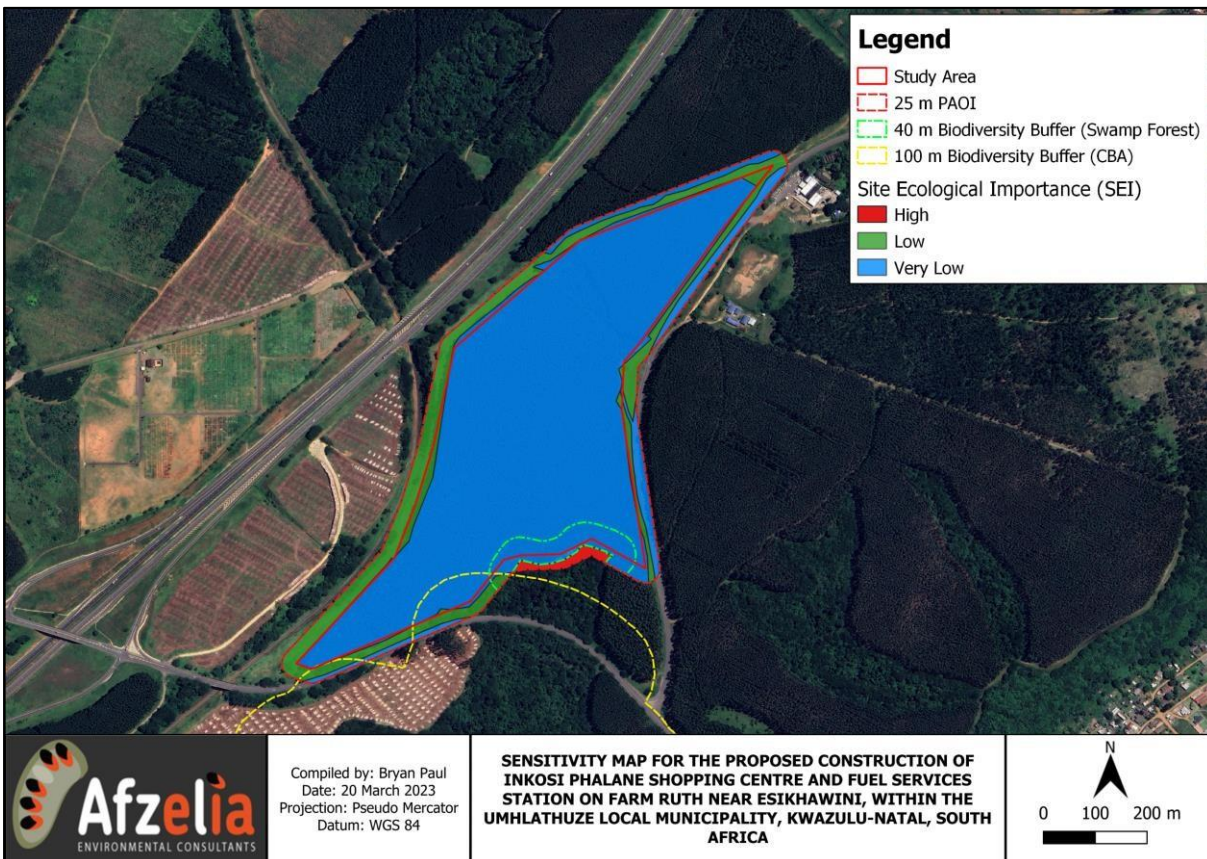


Figure 7 - (Source: Terrestrial Biodiversity Compliance Statement prepared by Afzelia, dated March 2023, showing ecological importance for the study area)

The Plants of Southern Africa (POSA) search was conducted for the study area and 5 km radius of the site. More than 500 individual species were recorded, with most of the species coming the

Aizoaceae, Rubiaceae and Poaceae families. Although not found within the study area, the following SCC were included in the database search.

- *Asclepias gordon-grayae* (EN);
- *Atalaya natalensis* (NT);
- *Cryptocarya wyliei* (NT);
- *Dierama sertum* (NT);
- *Freesia laxa subsp. azurea* (VU);
- *Kniphofia littoralis* (NT);
- *Raphia australis* (VU); and
- *Thesium polygaloides* (VU).

According to DFFE Screening Report produced for this project, the site has been afforded two (2) sensitivities, namely “Low” (throughout most of the study area) and “Medium” along the southernmost tip of the site boundary. During the field assessment it was confirmed that the entire proposed development footprint fall within an existing timber plantation, with no remaining natural habitat present. As such, the site verification concluded that the **entire site would have a “low” plant species sensitivity**, and the specialist **disputes the presence of “medium” sensitivity** along the southern boundary.

The overall lack of suitable habitat within the study area has led the specialist to **dispute the sensitivity of medium, and rather assign a sensitivity of “low” for the entire site**. However, the presence of forest habitat along the southern boundary must also be considered. It is therefore recommended that a biodiversity buffer of 40 m is established between the nearby forest habitat and the boundary line of the proposed development. A further 100 m buffer must be established between the forest habitat found within the CBA area nearby and the proposed development. As the proposed site already exists outside of this biodiversity buffer, there should be no significant restrictions in this regard, and the irreplaceable resources identified within these areas will continue to persist without an influence from the proposed development.

During the field assessment, the specialist observed no Species of Conservation Concern (SCC), except three (3) provincially protected species in terms of the Natal Nature Conservation Ordinance No. 15 of 1974 that were observed as illustrated in the Table below:

Table 7 - Summary of the protected plant species located within the study area.

Family Name	Species Name	Common Name	Conservation Status	Approx. Frequency
Iridaceae	<i>Dietes iridioides</i>	Wild iris	LC (Protected in terms of the Natal Conservation Ordinance).	<10
	<i>Freesia laxa</i>	Rooiypyie		<30
Amaryllidaceae	<i>Scadoxus puniceus</i>	Snake Lily		<50

Prior to the removal of any of the species listed above, the Contractor or Applicant must submit an application to Ezemvelo KZN Wildlife, and request a permit to remove and translocate these species to a nearby suitable location.

The proposed development will entail mass vegetation clearing and soil removal activities, which may have a significant impact on the surrounding (bordering) terrestrial environment, if not carefully

managed and controlled through the application of site-specific mitigation techniques. Clearing activities have been proposed within an existing timber plantation and therefore will not have any significant floral impacts, with the exception of the removal of provincial protected plant species.

Nearby faunal impacts may stem from surrounding swamp forest, in terms of increased noise, decreased water quality and increased dust creation. The forest patch located along the southern boundary of the site however is already heavily fragmented, as a result of a nearby main road, and the plantation located on either side of the ecosystem. In order to buffer the effects of the proposed development, a 40 m biodiversity buffer has been recommended, which will not only maintain connectivity between this ecosystem and the proposed development, but also assist in dust and noise screening during the construction phase of the project. A further 100 m biodiversity buffer was recommended, and whilst this will not fall within the project area, it should be considered for future developments / phases nearby to prevent further losses in ecological connectivity and fragmentation of an important faunal corridor for the area.

Table 9 of the report has captured key mitigation measures and management outcomes, which will be incorporated into the Environmental Management Programme.

During the verification exercise it was confirmed that the sensitivity illustrated within the DFFE Screening Tool Report is not collaborated with in its entirety, and the following revised sensitivities have been allocated to the micro-habitats present within the study area:

Table 8: Summary of the revised site sensitivities identified within the study area.

Micro-habitat	Revised Sensitivity
Secondary Vegetation	Low
Transformed Areas	Very Low
Swamp Forest	High

During the desktop assessment, it was identified that the proposed development footprint would not impact CBAs, Ecological Support Areas or Threatened Ecosystems. Although the one (1) vegetation type recorded within the study area has a national and provincial threat status of “Endangered”, no natural habitat will be directly affected and therefore the conservation goals and objectives set out for this ecosystem will remain unaffected.

Furthermore, the plant and faunal species listed within DFFE screening report were not identified on site during the verification, and it was determined that the site was, as result of its modified state, would have a low to very low probability of housing these species. However it was noted that *Stephanoaetus coronatus* (type of an eagle) frequently nests within plantation forests, and therefore specific mitigation measures have been recommended to avoid impacting this species.

It was determined therefore, that the proposed development would have a **low impact** on the receiving environment, with no fatal flaws being identified by the specialist. This statement is only valid however, if the Applicant:

- Acknowledges the recommended biodiversity buffers of 40 and 100 m to be established by the Applicant in order to safeguard more sensitive ecosystems located in the vicinity of the development footprint; and

Avian Impact Assessment

This assessment was not done based on the site observation of the assessing team. In any event the biodiversity assessment has covered fauna as observed on site, and the general view is that a separate avian impact assessment is not warranted. As highlighted above, *Stephanoaetus coronatus* frequently nests within plantation forests, and specific mitigation measures have been recommended in the Terrestrial Biodiversity report to avoid impacting this species.

Important Bird and Biodiversity Areas (IBAs), as defined by BirdLife International, constitute a global network of over 13 500 sites, of which 112 sites are found in South Africa. IBAs are sites of global significance for bird conservation, identified nationally through multi-stakeholder processes using globally standardised, quantitative and scientifically agreed criteria. Essentially, these are the most important sites for conserving.

Inkosi Phalane Shopping Centre draft Market Feasibility Study prepared by Urban Econ dated March 2023 – (Appendix D3)

The need for the market research is required to inform investment decisions regarding the development to provide guidelines in terms of the proposed shopping centre, and to gauge and unpack the market preferences and demand.

This is a greenfield development, on land currently leased by Mondi Forest for forestry purposes, on a site owned by Phalane Community Trust. The proposed development will service a wide area that includes Esikhaleni Township, Gobandlovu, Port Dunford, KwaDlangezwa, Mthunzini and surrounding areas.

The development is motivated by the fact that the area is under serviced by retail facilities. There is no shopping centre within the eye of N2 travelling from Durban to the far north of KwaZulu – Natal. The available shopping centres call for a detour of about 5 to 10kms from the N2. In this regard the proposed development will provide convenience to the immediate surrounding communities as well as the transient market travelling along the N2.

The municipality has vast areas of commercial farmlands as well as a number of areas that are significant from an environmental perspective. The municipal area includes the formal towns of Empangeni, Richards Bay, eSikhaleni, Ngwelezane, eNseleni, Vulindlela and Felixton. There are also several rural settlements as detailed above. Richards as a harbour and industrial town, attracts people from surrounding towns, rural settlements and from beyond the District.

The site is within proximity of the two secondary nodes i.e. Esikhaleni node and Vulindlela node. These are intersected by the primary corridor, the N2 highway. There are two other nodes within the market area, and these include Port Dunford which is an emerging tertiary node and Mabuyeni which is a rural node. All these nodes are under serviced with retail activities which is what the proposed retail centre aims to address.

The feasibility study regard the site as ideal from the following perspectives:

- Locality and size of the site
- Visibility
- Development perspective

- Parking
- Gradient
- Infrastructure
- Opportunities.
- Expansion possibilities.

According to the study the assessment of the site indicated an overall rating of 87.5%, meaning that the site is suitable, and the shopping centre has a high potential of succeeding if built on this site.

There is very limited supply within the market area, especially after the KwaZulu - Natal July looting that resulted in the burning of the only existing shopping centre within Esikhaleni Township. The existing Esikhawini Convenience Centre (Ok Mini Market) and Okay Express at Total Garage are the only places that community can buy from currently while the mall is being rebuilt. Otherwise they need to travel to Richards bay or Empangeni. The OK Mini Market will be the closest to the proposed development.

A market delineation was undertaken to identify the areas that would typically fall within the market catchment area for Inkosi Phalane shopping centre. The market delineation was primarily based on the standards and classifications set by the South African Council of Shopping Centres (SACSC). In line with SACSC standards with regard to the classification of regional shopping centres, a 5 km radius was used for defining the primary catchment area.

The secondary catchment area was extended to include areas within a 10 km radius and the tertiary market includes areas within 15km radius. The absence of a regional size mall towards the south of uMhlathuze municipality within proximity to the tertiary market and beyond in areas such as uMthunzini will attract this market to the proposed development. For the purposes of this study, the primary and secondary market will be profiled because they serve as the key market for the proposed development.

The report has also developed a socio-economic profile for the market catchment area of the proposed development in order to provide an understanding of the demographics, economic and expenditure characteristics and patterns of the catchment area based on existing statistics.

Information within the market catchment area was derived and assessed to develop a nodal profile for the impacted residential areas that fall within the potential market catchment of the proposed development.

Sources of information include:

- Quantec database which is based largely on data from StatsSA
- National Census information (2011 extrapolated to 2022)
- Community Household Survey 2016
- General Household Survey 2021
- Quarterly Labour Force Survey 2021

This socio-economic profile analysis fulfils an important role in providing an indication of the development potential within the relevant area. The female population accounts for 57% per

cent of the total population and the male population accounts for 43% of the population. About 32% of the population falls into the youth category (below 15 years of age), whilst almost three quarters of the population is of working age. This is due in large part to the presence of employment opportunities at the Port of Richards Bay, as well as a number of businesses which are located in the town.

The education profile indicates a high education level, with 49% of the population over the age of 20 having completed matric or studied further after matric. 29% of the population have completed secondary school, 13% have completed primary school and only 8% have no formal education. This indicates that, in general, the population of the primary area is likely to be skilled or semi-skilled. 34% of the catchment population labour force are employed whilst 21% are unemployed and seeking a job.

The report has also presented that the country's largest malls, the number of customers has begun to stabilize in 2022. Foot counts are still rising significantly in comparison to 2021, and this expansion was the key factor in driving trading density for the quarter ending in September 2022. As foot counts have recovered by 22% year-on-year.

There are many retail centres located mainly in Empangeni and Richards Bay town spanning a range of classifications, sizes, tenants and facilities, and catering to various target markets. Analysing and mapping the supply in the area forms the basis of a gap analysis for the site and allows for an estimation of unmet demand.

The supply analysis gives a good indication of what is available in the market and who are or will be the direct competition. By understanding what is offered by the competitors, size and magnitude of the existing developments, location in relation to the proposed development site. This information will then inform the demand of the proposed development. The information is captured under Table 4 of the report.

The report has indicated that currently, there is no direct competition for the proposed development within the market area. The people within primary market area rely on Empangeni and Richards Bay for retail supply. Although, the two identified centres are not direct competition for the proposed development, they will inevitably be affected by the proposed development. An in-depth socio-economic impact assessment is found in the report attached on this report as **Appendix 4**, and summarized below.

The consumer/shopper surveys were conducted over a 2-day period. The surveys were administered in person (face-to-face), on the 23rd and 24th of January 2023. The surveys were administered in the major nodes within the market catchment area such as the Esikhawini taxi rank at the temporarily closed ESikhawini Mall, OK express at Total garages.

Most of the respondents (47%) indicated that were employed, and 16% self-employed, 16% percent of the population is unemployed and 21% of the people surveyed were students, whilst none of the people surveyed indicated they were retired.

The questions asked were meant to understand the market area's current shopping patterns, which will help determine who the potential competition is for the proposed development and key gaps that the new development should address in future.

Over 50% of the respondents indicated that they use public transport to get to their preferred shopping centre/s or areas. About 20% drive and 8% indicated that they walk to the shopping centre or area. The people who indicated that they walk are the ones that work or live near the

shopping centres, this was mainly the Esikhaleni residents and traders that are located closer to Esikhaleni.

All of the surveyed participants (100%) responded positively, citing the current lack of shops and restaurants within the area (54%), and the convenience this shopping centre will bring to the community. Some respondents suggested that local people should be prioritised for employment opportunities that the Centre bring.

The report's conclusion is that the proposed shopping centre is feasible due to the findings and assessment of the market demand.

Inkosi Phalane Shopping Centre draft Socio Economic Impact report prepared by Urban Econ dated June 2023 – (Appendix D4)

The study aims to identify, quantify and assess the anticipated socio-economic impacts of the proposed development on the receiving environment, as well as providing suggestions on measures that could mitigate any negative impacts and enhance positive impacts. It further provides a reasoned opinion on the need and desirability of the proposed project from a socio-economic perspective.

Any development is likely to have a socio-economic impact on the area in which it is developed. In this instance the socio-economic impacts of the proposed development are identified and quantified according to the predefined criteria. The potential socio-economic impacts are assessed for the construction and operational phases of the proposed Inkosi Phalane Shopping Centre.

The assessment considers both the economic and social impacts of the proposed development. There are overlaps between economic and socio-economic impacts and they are not mutually exclusive. The socio-economic impact assessment is largely an interpretation of the significance of the economic impact on local communities, and to some extent businesses.

This assessment has adopted the assessment criteria that is based on the Department of Environmental Affairs and Department of Development Planning: Guideline for Socio-Economic Impact Assessment (Van Zyl, de Wit, & Leiman, 2005). The impact assessment criteria is illustrated under Table 5 of the report attached as **Appendix D4**.

The economic impact of the proposed development of Inkosi Phalane Shopping Centre is determined by a multiplier analysis which measures the direct and indirect impacts on the regional economy derived from the capital expenditure of the proposed development. The anticipated total capital expenditure for the proposed development over a two-year construction period is over a billion.

According to the Urban Econ study assessment, the impact of the CAPEX investment can be used to determine the economic value of additional business opportunities created upstream and downstream of the contractors who secure work in constructing the proposed development. The localisation of these opportunities will be dependent on the localisation of the supply chain for the construction of the proposed development. Through forward and backward linkages into the regional economy, the CAPEX is anticipated to support direct new business sales opportunities of R82 billion which is a significant boost for the regional economy.

The capital outlay on the development is expected to inject an additional R18 billion direct GDP into the regional economy. The eco spatial scale at which the GDP impact will be felt is, however, a function

of the geographic location of the companies appointed as service providers to undertake the required construction and engineering services.

Another positive socio-economic impact which is anticipated to result from the input CAPEX investment during the construction of the proposed development is the contribution to improving the income levels of households who benefit from the increased business sales stimulation.

The stimulation of business activity is anticipated to generate improvements in income levels for those businesses and households that are able to benefit from supply contracts, both to undertake the construction, as well as to supply the required goods and specialist services. This direct impact in income levels is expected to be R10 billion. Again, the scale of the economic impact could extend beyond the regional economy as it is based on the geographic extent of the supply chain, which could reach all over South Africa.

The construction phase will create an estimated 652 direct FTE jobs. Direct jobs relate to the individuals employed by the construction companies, research specialists, and equipment suppliers commissioned to undertake the required work and supply the required services and equipment. A further 1 743 FTE jobs are expected to materialise through second round suppliers. This occurs when suppliers of new goods and services to the appointed contractors (first round suppliers) experience larger markets and potential to expand.

It is expected that the increased income in these households employed directly or indirectly through the construction of the proposed development will result in additional expenditure in the economy which stimulates growth and spurs additional employment.

It is estimated that a total 3 077 FTE jobs will be induced through the input CAPEX injection. The CAPEX injection is anticipated to generate a total of R9 billion in tax receipts, with R3 billion being a direct result of the CAPEX injection.

The operational phase of the proposed development is expected to inject an additional total of R57 million GDP into the regional economy. As with the construction phase impacts, the economic scale of the GDP impact is determined by the location of companies appointed as services providers for the effective functioning of each component of the development.

Tables 9, 10 and 11 of the report attached as **Appendix D4** has outlined all potential social impacts during both construction and operational phases.

The shopping centre will attract significant number of customers because of the variety of retail services the Shopping Centre will offer which could potentially take away customers of the existing shopping centres, namely, Esikhawini Convenience Centre and Esikhawini Mall which may affect their business turnover. The probability of this is low because the existing centres are not competing at the same level as the proposed shopping centre. Furthermore, it was established during the consultations with community members within the study area that the existing centres are sometimes struggling to efficiently service the high demand of retail services.

The properties within the receiving environment especially in proximity to the proposed shopping centre will potentially increase in value because of accessibility of amenities and services such as retail.

Based on the analysis conducted, Urban-Econ considers the proposed Inkosi Phalane Shopping Centre a viable development proposition. However, it will inevitably have both positive and negative impacts

on the receiving community. Based on the assessment undertaken the project will have more positive impacts than negative impacts. The severity of negative impacts identified in the section above can be reduced if the mitigation measures are considered, thus reducing the severity of the impact on the receiving environment.

Plant Species Assessment

The issue of vegetation is already covered above. The project will avoid vegetation and tree species as much as possible on site.

Animal Species Assessment

The faunal details are captured in the Biodiversity report under Table 6. According to the DFFE Screening Report produced for this project, the entire study area has been classified as having a medium sensitivity. During the site verification, it was found that proposed development footprint occurs within a highly modified area, with no natural habitat present within the immediate study area.

Traffic Impact Assessment prepared by AGTTC dated June 2023 - (Appendix D5)

This report evaluates the traffic impact on the existing road network in the vicinity of the development site:

The scope of the TIA includes the following traffic related aspects:

- Manual traffic counts at the affected intersections;
- Sidra performance analysis of the affected intersections;
- Determine the ability of the surrounding road network to accommodate the anticipated traffic volumes during the weekday and weekend Friday PM and Saturday AM peak hours;
- Propose road upgrades, as may be necessary;
- Site access requirements; and
- Parking

The development site is located almost adjacent to the N2. The N2 is a Class 1 Principal Arterial road that has two lanes in each direction that are 3.7 metres in width and surfaced shoulders that are 2.5 metres in width. The site can be accessed from the N2 highway on Exit 315 on northbound and southbound of the N2. The N2 is located to the west of the development site.

On a local scale there is P535, located to the south of the development site. P535 is a Class 3 Minor Arterial provincial road that has one lane in each direction in the direct vicinity of the development. P535 links the development site from the N2 to Esikhaleni.

P533 intersects with N2 western and eastern terminals and forms a diamond interchange and in that way provides access from the north and south to the vicinity of the development site. Near the vicinity of the development site, P535, intersects with P106 and forms a three-legged intersection. P535 has dedicated turning lanes into P106.

P106, is a Class 4 Collector Road provincial road that has one lane in each direction. P106 is where direct access points will be located. P106 is an alternative route that provides access to and from Richards Bay/Empangeni apart from the N2 as it links up with R34 in the north. It also links up the areas such as Gobandlovu, Madlankala, with the development site.

Manual traffic counts were undertaken on 14 and 15 April 2023, respectively. These traffic counts were undertaken at the three intersections that would be directly affected by the proposed development and considering the trips to be generated by the proposed development.

The three intersections to be directly affected are:

- National Route 2 / P353 (Western Terminal);
- National Route 2 / P353 (Eastern Terminal); and
- P535 / P106

The traffic counts were used to determine the current level of traffic in the direct vicinity of the development site. The proposed development will generate a total of 1,900 trips during the Friday PM peak hour and 2,794 trips during the Saturday AM peak hour with in/out split.

The analysis results show that after the development generated traffic has been added to the 2023 and 2028 background traffic, the intersection of National Route 2 with P535 (Western Terminal) will continue to operate satisfactory with no approach worse than LOS B and C, respectively, during both the Friday PM and Saturday AM peak hours, with minor increase in delays and still plenty of spare road capacity available. This intersection will operate this way up to 2028 and beyond. Therefore, there are no capacity road upgrades required as a result of the proposed development.

The analysis results show that after the development generated traffic has been added to the 2023 and 2028 background traffic, the intersection of National Route 2 with P535 (Eastern Terminal) will continue to operate satisfactory with still no approach worse than LOS A during both the Friday PM and Saturday AM peak hours, with negligible increase in delays and still plenty of spare road capacity available. This intersection will operate this way up to 2028 and beyond. Therefore, there are no capacity road upgrades required as a result of the proposed development.

The analysis results show that after the development generated traffic has been added to the 2023 and 2028 background traffic, the intersection of P535 with P106 will continue to operate satisfactory with still no approach worse than LOS A during both the Friday PM and Saturday AM peak hours, with negligible increase in delays and still plenty of spare road capacity available. However, the north approach, which is P106 will operate at an unacceptable LOS F with significant delays and overcapacity. This will nonetheless affect the entire intersection functionality where it will operate at a poor LOS F.

In order to improve the functionality of the approach that will operate at a poor LOS F with significant delays and overcapacity, there are adjustments that need to be undertaken in order to facilitate the accessibility of the development site by the development generated traffic as well as facilitate traffic circulation and movement in the area. There are intersection upgrades required as a result of the proposed development, on the P535 and P106, and the proposed development access points, as discussed above.

The proposed development will be served by two ingress / egress points as discussed below. Access to the development site will not be taken off the National Route 2 or P535. Instead one access point (Development Access Point 1) will be taken off the P106. This access point will be at a distance of not less than 300 metres from the centre of P535 with P106, or as agreed with the responsible roads' authority. Another access point (Development Access Point 2) will be taken off the P106. This access point will be at a distance of not less than 150 metres from the centre of P106 with Development Access Point 1, or as agreed with the responsible roads' authority.

In this regard the Applicant together with the Traffic Engineer will explore the issue of the second access point taken along P106 direct opposite the site, near OK Market. All road improvements, accesses and exits are to be designed and dimensioned according to the responsible road authority's standards and requirements.

As per uMhlathuze Land Use Scheme Regulations dated 2019" the number of parking bays required to meet the parking demand that will be generated by the proposed Inkosi Phalane Shopping Centre Development suggest that the parking rate that is applicable is: 4 parking bays/100 m² for the entire Shopping Centre. It was therefore proposed that a rate of 2.0 parking bays/100 m² for the entire Shopping Centre be applied in this scenario. It is therefore required that in total a minimum of 1,200 parking bays be provided on site to meet the parking demand as a result of the proposed development.

It is recommended that public transport facility that will accommodate about 57 minibus taxis be provided on site to meet the public transport demand. This public transport facility will ensure that the proposed development will be accessible to all people including those who do not have access to private vehicles. In addition, public transport lay-bys are recommended to be provided downstream of the intersection of P106 with Development Access Point 1 and Development Access Point 2 intersections downstream of the intersection on both sides of the road.

Pedestrian facilities such as sidewalks are recommended to be provided on the property frontage of the development site to encourage and facilitate accessibility of the development site by pedestrians. These sidewalks should be linked to the public transport lay-by proposed to be provided at the entrance to the development site.

Raised pedestrian crossings are also proposed to be provided at both access points on either side of the intersection. These pedestrians' crossings should be linked to the public transport lay-bys, and will also play a role of being traffic calming measures.

The proposed development is supported from a traffic and transportation perspective.

Geotechnical Investigation to guide planning and conceptual design for the proposed Inkosi Phalane Shopping Centre prepared by Geosure (Pty) Ltd dated May 2023 - (Appendix D6)

The fieldwork was initially carried out from 11 November 2022 to 15 November 2022, and again with the extended piece of land another geotechnical investigation was carried out over the period 11 April 2023 to 14 April 2023. The fieldwork comprised of inspection pits, CBR dynamics cone penetrometer tests and dynamic cone penetrometer light tests.

The site was observed to be underlain by limited fill (man-made earth), colluvium (fine transported hill wash), aeolian (wind transported) deposits, and eluvium (leached intermittently water-bearing soils) which is detailed under p.5 of the report.

A total of 31 inspection pits were excavated. Groundwater seepage was not observed in any of the inspection pits. However, groundwater seepage may occur along the interface of the various soils during the wet summer months or after periods of heavy rainfall.

The site is generally stable and suitable for the proposed development, provided the recommendations given in the report are adhered to.

The report highlights that pipe trench lines can become a route for on-going erosion, and can rapidly develop into erosion features (dongas) with resultant failure of the proposed pipeline. It is proposed that where pipelines run perpendicular to contours, over any gradients steeper than about 1 vertical to 6 horizontal, every 3m to 5m intervals a section of the backfill be stabilised with cement or lime (about 4% by mass). The section of stabilised soil should be about 1m to 2m in length. It is recommended that grass cover be reinstated as soon as possible over the trench to prevent erosion.

All earthworks should be carried out in a manner to promote stable development of the site. It is recommended that earthworks be carried out along the guidelines given in SANS 1200 (current version). The guidelines for earthworks for the site are provided under p.11 and 12 of the report.

Regarding drainage and erosion, it is important for the stability of the site to control and remove surface and groundwater from the site. The sandy soils as observed on site can be susceptible to rapid erosion due to uncontrolled / channeled runoff. It is important that earthworks and drainage measures be designed in such a way as to prevent ponding or high concentrations of stormwater or groundwater anywhere on the site, during construction and operational phases. Stormwater from roofed and surface areas is to be reticulated off site into the nearest municipal stormwater connection facility allowing for attenuation and erosion controls to engineer's detail. The terraces should be shaped to a gradient to prevent water ponding on the surface and should be graded to direct water away from the structures.

Summary of some of the findings and recommendations

- The site is considered stable and suitable for the development as proposed, provided the recommendations given in this report are adhered to.
- The sandy soils encountered on site are assessed to be extremely erodible in response to uncontrolled/ channeled surface runoff and can experience major erosion-related damage.
- Owing to the sloped nature of the site, levelling to establish one or more construction terraces is envisaged.
- It is therefore recommended that earthworks be carried out along the guidelines given in COLTO / SANS 1200 (current version) and in accordance with current requirements of the OHS Act.
- It is imperative that allowance be made for the removal of tree stumps and their roots to facilitate construction and avoid difficulties with building works, in particular foundations.
- Removal of these trees may cause the groundwater table to rise, which may in turn cause an increase in the soil moisture content and subsequent heave of the cohesive soils.

- A piled foundation is recommended for the assumed significant structural design loads of the proposed building development, and details are discussed in Section 11.9 of this report.
- It is recommended that a detailed geotechnical investigation be conducted to inform the civil infrastructural and structural designs.
- This deeper geotechnical investigation should comprise at least five rotary core boreholes with standard penetration tests advanced to prove either 5m of competent rock or to a final depth of 25m to 30m.

Limitations

- The findings and recommendations in this report may require re-evaluation if subsurface conditions different than stated herein are encountered.
- The findings and recommendations contained in this report were developed in accordance with a generally accepted current professional principles and practice ordinarily exercised, under similar circumstances, by geotechnical engineers and geologists practicing in this locality.

All outcomes from the specialist assessments that have been incorporated into this report and draft EMPr.

Outcomes of the assessments were used to:

- Enrich the description of the receiving environment;
- Will influence the final layout and design that will be presented with the final BAR;
- Recommendations of the specialists form part of the draft BAR and EMPr including recommended mitigation measures and identified potential impacts.

J. AN ENVIRONEMNTAL STATEMENT WHICH CONTAINS -

(i) A summary of the key findings of the environmental impact assessment;

The impact of vegetation clearance, wetlands and soil erosion are viewed as the most significant negative threats by the proposed development. The site comprises wetlands and biodiversity areas that are regarded as sensitive environments on this site. The Biodiversity Study has also identified some protected species within the commercial timber forest that will need to be relocated through the permit i.e. *Dietes iridioides*, *Freesia laxa* and *Scadoxus puniceus* as outlined under Table 8 above, and depicted below under Figure 8. Other than these, and eagle nesting areas, no other plant or animal of conservation importance was observed on site that is likely to be disturbed. It has to be noted that mitigation measures will also be put in place.



Figure 9: *Scadoxus puniceus* (left) and *Dietes iridioides* (right)

This will include relocation of species as may be necessary, amendment of the site development plan, observing wetland and biodiversity buffers, and avoidance in terms of the hierarchy.

Wetlands within and around the property are not expected to be directly affected by the proposed development as the development footprint does not traverse any of the wetlands. As long as the buffers are observed on site. It will be important that these buffers be clearly demarcated as no-go zones. Channeling/management of stormwater during both the construction and operation phase will be crucial for avoiding/limiting indirect impacts of the proposed development on the said watercourses / wetlands.

The traffic conditions are likely to increase in the vicinity of the proposed project, hence the proposed upgrades at the intersection of P535 and P106.

The proposed development will greatly benefit the surrounding communities especially in light of the impacts of Covid 19 and July 2021 looting events within the Province of KwaZulu - Natal. The ability to be able to walk/drive a short distance to the Shopping Centre to purchase required items will greatly benefit surrounding communities. In a country that is characterized by high unemployment rates, the permanent employment opportunities which will be created during the operation phase of the proposed development will be of great socio-economic benefit.

(ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffer

Figures 6 and Figure 8 above are clearly showing sensitive areas in the form of wetlands and biodiversity, with clear buffers of 39m and 40m respectively. See also Figure 9 below.

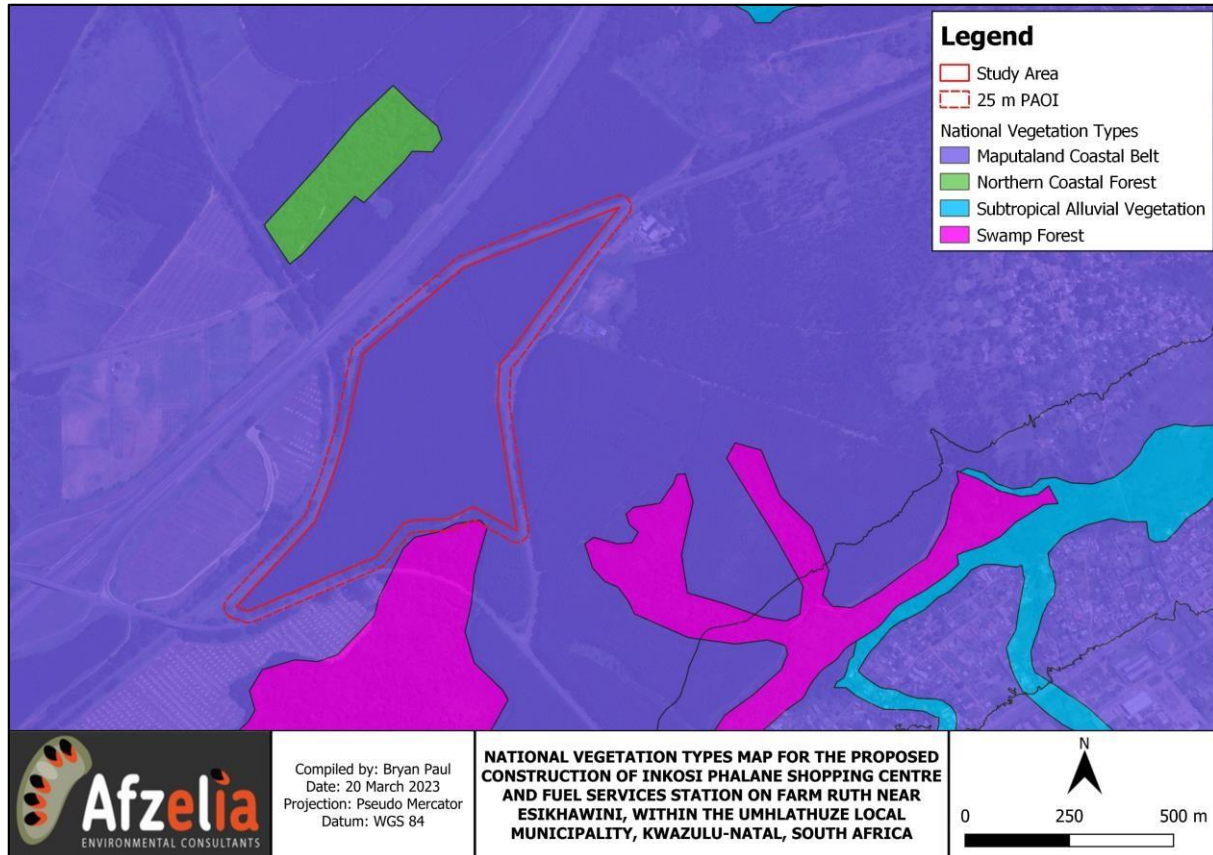


Figure 10 - (Source: Terrestrial Biodiversity Compliance Statement prepared by Afzelia, dated March 2023, showing ecological importance for the study area)

K. BASED ON THE ASSESSMENT, AND WHERE APPLICABLE, IMPACT MANAGEMENT MEASURES FROM SPECIALISTS REPORTS, THE RECORDING OF THE PROPOSED IMPACT MANAGEMENT OUTCOMES FOR THE DEVELOPMENT FOR INCLUSION IN THE EMP

The impact management measures in this section are from several studies conducted on site. In this part of the report we are specifically focusing on the recommendations made which are aimed at impact management for impacts that would most likely have significant outcomes.

- It is recommended that the development footprint is positioned as to avoid the highly sensitive areas like wetlands and vegetation.
- It is recommended that the 39m buffer for the wetland, and 40m buffer for the biodiversity be observed on site.

- Environmental Control Officer (ECO) must be appointed to oversee that the conditions stipulated in the Environmental Authorisation/ EMPr are carried out.
 - ❖ Pre-construction environmental induction for all construction staff on site must be conducted, this will include the following as a minimum requirement to be covered:
 - Dust suppression – agreed practical methods confirmed by the Contractor;
 - All water use on site must be recorded throughout the lifespan of the project.
 - Demarcation of wetlands as no-go areas;
 - Clarify expected conduct of staff on site – no harvesting of plants, usage of fire on site, reporting incidents, and relationship with ECO.
 - Objectives and conditions of the approved EA, EMPr, Method Statements, ECO Audit Reports and Recommendations etc.
 - Spill Protocol (small and large spills); and
 - Emergency Numbers (ECO, Snake Expert, SAPS, Local and District Municipalities etc.).
- All areas earmarked to be cleared, must be adequately staked and inspected by the ECO to ensure that no fauna and / or indigenous vegetation is accidentally injured/ killed / removed by construction activities on site.
- An accurate account of water usage (drinking, dust suppression etc.) must be kept by the Contractor.
- All construction vehicles should adhere to clearly defined and demarcated roads. No adhoc roads may be constructed without prior permission of the ECO and site Engineer.
- Dust suppression and erosion management should be an integral component of the construction process.
- No dumping or burying of building waste or spoil material from the development should take place on areas other than a licensed landfill site.
- All hazardous materials should be stored appropriately to prevent contamination of the proposed development site.
- Any accidental chemical, fuel and oil spills that occur at the project site should be cleaned up accordingly as per the nature of the spill.
- An Environmental Incident Register must be kept throughout the project lifecycle; this will be used to record the following:
 - Rock falls into no-go areas;
 - Accidental spills of hazardous substances;
 - Observed die-offs of vegetation (on site);
 - Accidental removal of plants;
 - Complaints from Interested and Affected Parties/ Persons (I&APs);
- A search and rescue site walk-through must be completed by a suitably qualified specialist prior to construction to locate and mark SCC for translocation or preservation.
- If trenches need to be dug for drainage or other purposes, these should not be left open for extended periods of time as fauna and humans may fall in. Trenches which are exposed should contain soil ramps allowing fauna to escape the trench.
- Tool box talk on environmental issues on site must be conducted, at least once a month to all staff.
- Control measures must be in place during construction and the operation phases of the development to prevent the proliferation of noxious weeds on site.

L. ANY ASPECTS WHICH WERE CONDITIONAL TO THE FINDINGS OF THE ASSESSMENT EITHER BY THE EAP OR SPECIALIST WHICH ARE TO BE INCLUDED AS CONDITIONS OF AUTHORISATION

- Any animal fatalities (intentional or accidental) must be reported to the ECO and an incident report compiled.
- An ECO must be appointed during both the pre-construction and construction phase to ensure that the conditions of the Environmental Authorisation are sufficiently complied with.
- The appointed Contractor responsible for completing the development must be legally responsible for complying with the approved EMPr and EA.
- The Contractor must include environmental topics within the toolbox talks at least once a month, and should be made aware of the protected plant species located nearby.
- A botanical pre-construction walk must be conducted by the Contractor and ECO prior to the start of construction to ensure that any protected plant species are identified and adequately translocated in suitable habitat nearby.
- A brief alien invasive management plan must be compiled for this project.
- All biodiversity buffers must be included in the site development plan and considered no-go areas.
- No construction activities should take place during the evening.
- No pesticides should be used by the Contractor, and a mechanical removal approach should be prioritised by the Contractor. If pesticides are required, the ECO must advise on the best approach to be adopted by the Contractor.

M. A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES, AND GAPS IN KNOWLEDGE WHICH RELATE TO THE ASSESSMENT AND MITIGATION MEASURES PROPOSED

The impact assessment has been conducted with the consideration of the project scope as per description given by the Developer. If the project is altered in any way, impacts that actually do occur on or around the site may end up being of higher significance.

The specialist studies were conducted over a limited space of time and therefore there may be some changes on site conditions at the time a site assessment is conducted by the different Departments or at the commencement of construction.

The EAP's view that the proposed development's socio-economic impacts outweigh negative potential environmental impacts is based on the assumption that conditions especially with provided mitigation measures in the EMPr are to be adhered to; which will reduce potential negative impacts to insignificant levels.

N. A REASONED OPINION AS TO WHETHER THE PROPOSED ACTIVITY SHOULD OR SHOULD NOT BE AUTHORISED, AND IF THE OPINION IS THAT IT SHOULD BE AUTHORISED, ANY CONDITIONS THAT SHOULD BE MADE IN RESPECT OF THAT AUTHORISATION;

Concluding Remarks including Preferred Project Location

The preferred site is the only suitable site in the area that is owned by the Developer with all the necessary attributes for the proposed development. The property is also adjacent to the N2, P535 and P106 road network, and closer to the surrounding communities.

Alternatives for location of the proposed development within the property has taken into account the environmental sensitivities within the site such as the wetlands and vegetation. The proposed development footprint has also taken into consideration the distance of 300 metres from P535 as the first access point as proposed by the Traffic Engineer.

The Developer's Architect has taken a step to amend the site development plan following input from Specialist Wetland, Biodiversity and the Traffic Engineer Studies to avoid sensitivities and observe road protocols.

The EAP is adamant that the sensitivities observed on site must not be encroached upon by the proposed development.

Opinion as to whether the proposed activity should be authorized

The property that the proposed development is located on is surrounded by different developments which have already influenced the conditions on the site. In the main, this include all previous road constructions.

Although there are some negative impacts which can be associated with the proposed development, it is the opinion of the EAP that input from the different specialists and state departments will provide sufficient mitigation measures to reduce the project impacts to acceptable levels. Therefore, the socio-economic gain of the proposed development will outweigh the negative environmental impacts. The proposed development should therefore be considered favorably. It is the view of the EAP that the project will avoid all identified sensitivities, and this will be enforced through an authorization and EMPr.

Conditions to be made part of the EA

- All waste produced during the construction phase must be disposed of at the nearest landfill site and proof of safe waste disposal must be kept on site.
- No site clearance may take place without engaging the ECO and relevant specialist as may be required.
- All recommendations made by the specialists must be part of the conditions of the EA.
- The EMPr will form an integral part of the EA.
- The recommended buffers must be declared no go areas.

O. WHERE APPLICABLE, DETAILS OF ANY FINANCIAL PROVISIONS FOR THE REHABILITATION, CLOSURE, AND ONGOING POST DECOMMISSIONING MANAGEMENT OF NEGATIVE ENVIRONMENTAL IMPACTS

The applicant must make provision for rehabilitation in the form of protected tree species relocation and landscaping on project completion. There is also a need for alien species eradication plan, to address the issue of invader species mostly associated with earthworks relating to the project in terms of National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and related Regulations dated 2014.

The implementation of Alien Invasive Management plan and Landscape plan will require adequate planning and budget.

P. ANY SPECIFIC INFORMATION THAT MAY BE REQUIRED BY THE COMPETENT AUTHORITY

None identified at this point.

Q. ANY OTHER MATTERS REQUIRED IN TERMS OF SECTION 24 (4) (a) AND (b) OF THE ACT

None identified at this point.

THE ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT is attached as **Appendix E**

AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO;

- (i) The correctness of the information provided in the reports at the time of compilation;
- (ii) The inclusion of comments and inputs from stakeholders and I&APs;
- (iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and
- (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.

I,

confirm that the information provided in the report is correct;

The inclusion of comments and inputs from stakeholders and I&APs is correct;

The inclusion of inputs and recommendations from the specialist reports is correct;

Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties.

Commissioner of oaths:

Commissioner:

Place:

Date: