MONDLI
CONSULTING

KWAMBONAMBI SERVICE STATION WITH ASSOCIATED STRUCTURES

DRAFT BASSIC ASSESSMENT REPORT - Proposed construction of KwaMbonambi Service Station with associated structures, including Truckstop, retail shops / cash and carry, restaurant and bed & breakfast / motel on Erf 1653 KwaMbonambi, uMfolozi Local Municipality

ABSTRACT

This is the Draft Basic Assessment report for the proposed development of KwaMbonambi Service Station with associated structures. It includes a description of the proposed development, preferred alternatives, receiving environment, potential impacts and proposed mitigation measures. Comments raised by the I&APs have also been briefly highlighted in this report with a specific focus on issues/concerns raised. This report has been prepared in line with the EIA Regulations, 2014 as amended.

Prepared by: Mondli Consulting Services

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DRAFT BASIC ASSESSMENT REPPORT – PROPOSED KWAMBONAMBI SERVICE STATION WITH ASSOCIATED STRUCTURES

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 KwaMbonambi Service Station with associated structures, including Truckstop, retail shop / cash and carry, restaurant and bed & breakfast / motel on Erf 1653 KwaMbonambi, uMfolozi Local Municipality, KwaZulu – Natal.

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

Mondli Consulting Services was appointed by Nzukaskeyi Trading (Pty) Ltd to conduct a Basic Assessment process for the proposed development of a fuel service area, truckstop, retail centre/restaurants/ cash and carry and a motel/bed and breakfast and associated infrastructure on Erf 1653 KwaMbonambi, uMfolozi Local Municipality, KwaZulu-Natal.

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 (including curriculum vitae) IS ATTACHED as Appendix G (1)(b).

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. 2018/168 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), confirmed to comply with the requirements set by South African Council for Natural	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

		Scientific Professions.	projects impacting on the environment.
A Mhatu	Bachelor of Science Degree Ecology, Environment & Conservation and Geography	SACNASP Registered (Membership No. 125863).	Has over 6 years' experience in conducting EIAs and EIA related work.

B. THE LOCATION OF THE ACTIVITY

(i) The site for the proposed service station and associated structures is located on Erf 1653 KwaMbonambi, uMfolozi Local Municipality, King Cetshwayo District Municipality, KwaZulu – Natal. The 21-digit Surveyor General code of each cadastral land parcel is given in the table below.

N	0	G	V	0	1	7	4	0	0	0	0	1	6	5	3	0	0	0	0	0

(ii) The physical address and farm name

The site is located close to the N2 leading to the north of KwaZulu - Natal. It is located near the Exit 355 Amangwe Village/KwaMbonambi.

The total area of the property (Erf 1653) is 15.2174 hectares in extent as per the title deed, and the area allocated for the project is about 7.2174 hectares with the total project footprint being about 1.9144 hectares.

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

Points	**Latitude /Longitude**	**Degrees**	**Minutes**	**Seconds**
Point 1	**South**	28^0	36′	10.86″
	East	32^0	05′	41.03″
Point 2	**South**	28^0	36′	04.42″
	East	32^0	05′	43.81″
Point 3	**South**	28^0	35′	59.94″
	East	32^0	05′	43.56″
Point 4	**South**	28^0	35′	58.74″
	East	32^0	05′	39.26″
Point 5	**South**	28^0	36′	02.13″
	East	32^0	05′	38.27″
Point 6	**South**	28^0	36′	04.79″
	East	32^0	05′	34.79″
Point 7	**South**	28^0	36′	07.84″
	East	32^0	05′	34.03″

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

A locality map has been attached under **Appendix A (i)** showing the locality of the property including surrounding towns. A layout map showing where the structures will be located on site, as well as the Facility illustration **(Appendix A (ii).**

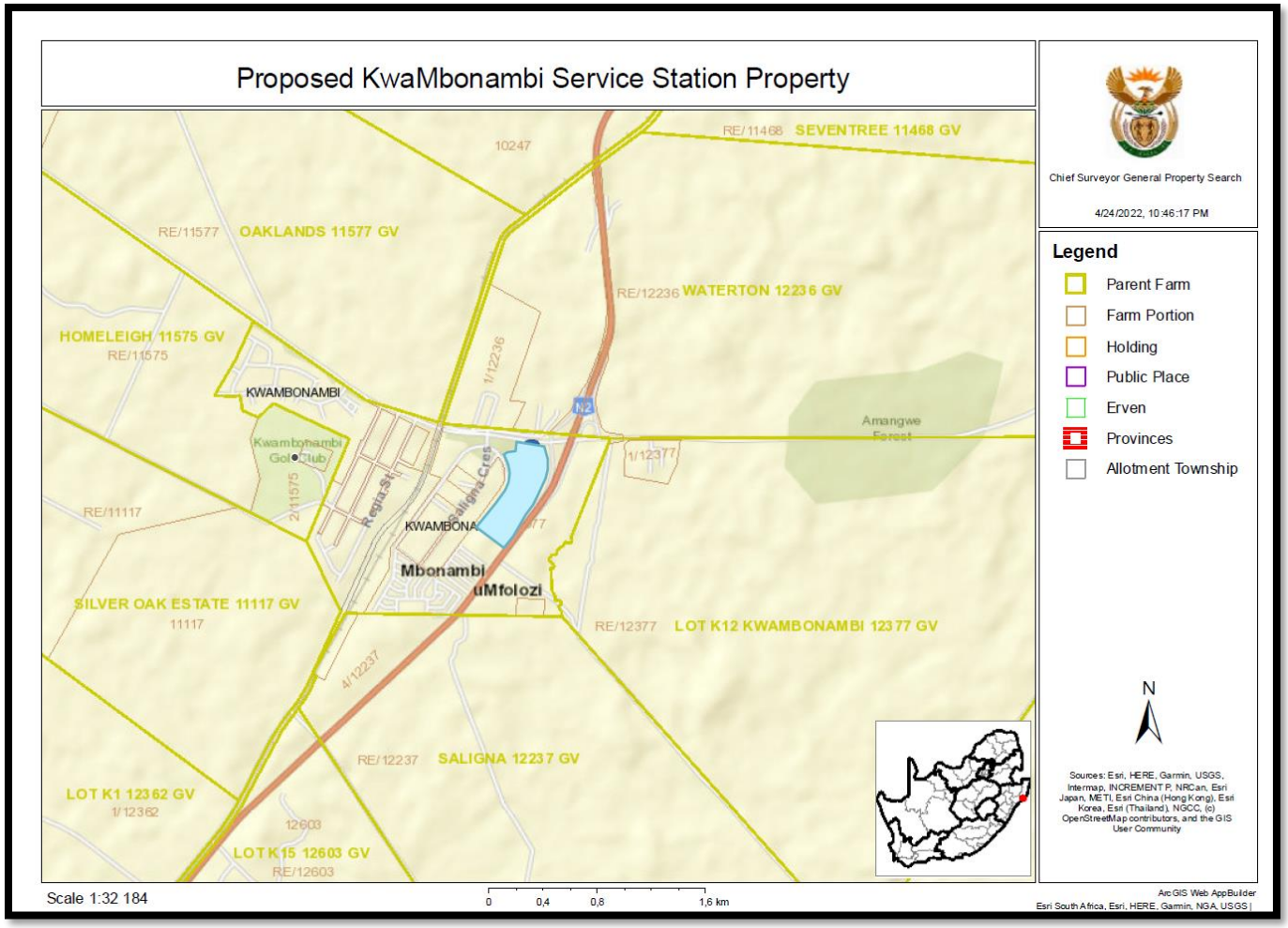

Figure 1: Locality map indicating the site for the proposed KwaMbonambi Service Station and associated structures

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

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

Nzukaskeyi (Pty) Ltd is proposing the construction of KwaMbonambi Service Station with associated structures. This development can be said to consists of 4 components namely; fuel service area, truckstop, retail centre/restaurants/ cash and carry and a motel/bed and breakfast. The proposed service station will include underground fuel storage tanks with a total fuel storage capacity of 138 cubic metres and the bed and breakfast will have a capacity to sleep/accommodate 40 people. There will also be some gas cylinders stored on the site. The total footprint of the area to be developed is about 1.9144 hectares.

The scope of the proposed development was considered against the status quo of the receiving environment and also against the Activities Listed in NEMA GNR 324, 325 and 327 to identify whether the proposed development falls within the thresholds of any of the activities listed within these Listing Notices. The table below shows Listed Activities within the National Environmental Management Act, 1998 (NEMA), GNR 324, 325 and 327 that have been identified as being 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):**
GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017.	Activity No. 14 - the development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic meters.	The proposed development will include underground fuel storage tanks with a total capacity of 138 cubic metres. Gas will be stored in cylinders of 9kg (20), 19kg (10) and 48kg (6), totaling 658 kg at any given time.
GNR. 327 of 2014 (Listing Notice 1) as amended on 7 April 2017.	Activity No. 27 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 – (i) the undertaking of a linear activity; or maintenance purposes undertaken in accordance with a maintenance management plan.	The proposed development has a total footprint of about 1.9144 hectares. As part of the construction process, earthworks will be conducted which will see the removal of more than one hectare of indigenous vegetation from the site.
GNR. 324 of 2014 (Listing Notice 3) as amended on 7 April 2017.	Activity No. 12 The clearance of an area of 300 square metres or more of indigenous vegetation. d. **KwaZulu – Natal** 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	According to the terrestrial biodiversity assessment conducted for the project site, the site is located within the Maputuland Coastal Belt (CB1) Vegetation Unit which has a conservation status of endangered. The proposed development will include clearance of vegetation that is in excess of 300 square metres.

	list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; xii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority; or	
GNR. 324 of 2014 (Listing Notice 3) as amended on 7 April 2017.	Activity 6 The development of resorts, lodges hotels and tourism facilities that sleeps 15 people or more. d. KwaZulu Natal vii. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; xi. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act as adopted by the competent authority;	According to the terrestrial biodiversity assessment conducted for the project site, the site is located within the Maputuland Coastal Belt (CB1) Vegetation Unit which has a conservation status of endangered. The Motel/BnB that will be part of the proposed development will have the capacity to sleep 40 people.

(ii) A description of the activities to be undertaken including associated structures and infrastructure

Background of the proposed development

The project entails the construction of KwaMbonambi Mixed Use Development. This development can be said to consists of 4 parts/components namely; fuel service area, truckstop, retail centre/restaurants/ cash and carry and a motel/bed and breakfast.

The fuel service station:

- Fuel storage tanks [2 x 46 000 litres ULP], 1 x 46 000 litres diesel all underground with total storage capacity of 138 000l (138 cubic metres).
- Forecourt with fuel pumps and canopy.
- Convenience/quick shop that will also include a fast food outlet/restaurant, sitting space inside and outside and kid's play area, rest rooms, staff change rooms, office space, store rooms, ATM and other related facilities.
- Car wash
- Parking Bays

Truck Stop

- 60 truck bays
- Battery and workshop centre

Retail Outlet/Restaurants/Cash and Carry:

The retail centre will be one shop with different bays/shopping sections including the bakery, butchery, deli, bottle store, kiosk, fruit and vegetables section, coffee shop flowers and gifting as well as other facilities such as storage, kitchen facilities and delivery bays. The convenience outlet will have customer parking bays and a loading bay for deliveries.

Motel/Bed and Breakfast:

The motel/bed and breakfast will have 10 guest rooms.
Some of the facilities within the motel include ablution facilities, kitchen, conference/dining area, store room, Manager's office and parking bays
There will also be an entertainment area which will include the kitchen, bar, dining area, kid's indoor play area, ablution facilities and wash, rooms, male and female lockers and manager's office. There will also be a swimming pool that will be an outdoor swimming pool which will be part of the entertainment area.

There will also be some garden/planted spaces within the development.

Area/Footprint

The site on which the proposed development is located has a total area of 7.2174Ha and the footprint of the proposed development is 19 144m^2 (1.9144Ha).

Project Objectives

The proposed development is conveniently located along the N2. The primary purpose of the proposed service station is to service transient customers (those using the N2). The N2 is the longest tarred and numbered road in South Africa. It stretches from Cape Town to the border of Mozambique. The N2 is therefore used a lot as a long distance travel route. Long distance drivers require refueling of vehicles along the way and also regularly need to stop for rest breaks, replenishing of snacks and other items. In some instances, overnight rest is needed. These are all services that the proposed development aims to provide for both motorists and truck drivers.

Small towns such as KwaMbonambi often lack entertainment facilities such as cinemas, play areas and community accessible swimming pools. This has in many studies been said to be one of the main factors driving youth towards destructible behavior including substance abuse. The proposed entertainment area will provide for entertainment activities for both children and adults through entertainment area, kids play area and swimming pool.

Objectives of the proposed development also include creation of employment opportunities especially in terms of permanent employment during the operation phase. The proposed development is also aimed at stimulating and encouraging economic development in the town and Municipality to encourage economic development that will help alleviate poverty and provide facilities that will help provide services to communities around KwaMbonambi in such that they are no longer dependent on towns that are further away.

Services on-site

Access/Roads

Although visible from the N2 road, however the project will take its access from P32 branching off to Acacia Road as per the yellow line reflected under Figure 2 below. This is line with SANRAL's standards.

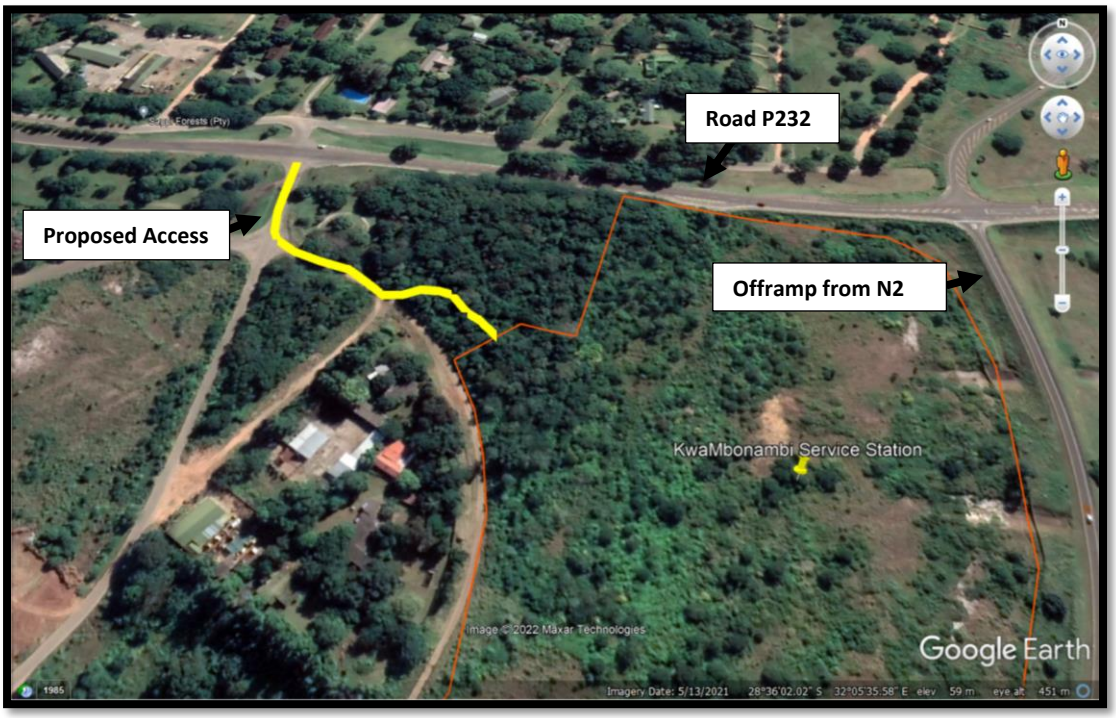

Figure 2: Google Earth image showing some of the roads around the site and the proposed access route roughly outlined with the yellow line.

Electricity

Eskom is the main supplier of electricity within the area. It will therefore be a matter of ensuring the necessary connections to the proposed Facility. Eskom will be formally contacted to ascertain capacity.

Water Supply

There is portable water in the area, however the issue of capacity will be discussed with the relevant water services authority i.e. King Cetshwayo District Municipality. The applicant has indicated that the available capacity may have to be augmented by exploring a borehole and rain water harvesting.

Sewer Supply

The area where the site is located has no sewer infrastructure, and the proposed project is intended to use septic tanks. The only sewer pipes will be from the ablutions to the septic tanks, and this will not be bulk transportation of sewerage. The septic tanks will be located at a distance of about 4 -5 meters from the ablution buildings. The shorter the distance the slimmer the chance of long-distance transportation of raw sewerage, and less chance for blockages. The diameter of the pipes will be around 110 mm, as 0.36m pipes are too big and they are for bulk transportation of sewerage. A wastewater management plan will be included in the final BAR which will consider comments from the relevant stakeholders.

Stormwater
A storm water plan for the site is currently in the process of being formulated and will be included in the final BAR.

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. The appropriate area and interval for waste disposal will be agreed to between Engineer, Contractor and Environmental Control Officer (ECO) to ensure that waste disposal does not culminate in any environmental degradation on or off-site. Burning and burying of waste will be strictly forbidden as provided in the EMPr.

Waste Management During the Operational Phase
Refuse will be stored on site, in a well-constructed waste storage area before disposal. The local Municipality will be requested to collect solid waste at least once a week if such a service is provided. Alternatively, a private service provider can be arranged for the collection of solid waste from the facility to the disposal site.

Construction Phase
The construction phase of the development will include:

- Fencing of the construction area;
- Positioning of site office and demarcation of storage areas;
- Set up of all facilities and services required for the construction phase;
- Clearing of vegetation for site preparation;
- Excavations for foundations;
- Construction of the foundations and rest of the building structures including walls, windows and roofs;
- Cubing for electricity and piping for water supply;
- Painting and other finishing;
- Installation of required facilities such as isle shelves, pay points, showers, furniture etc. and
- Development, paving and marking of parking areas and access.

Vegetation on site will be retained as much as possible, through the guidance of the ECO. The transplantation of certain plant species will be done as may be necessary, especially species that are protected and this of conservation concern. The necessary permit will be sought from the relevant authority. A single plant species (*Aristea torulosa*) protected by the KZN Conservation Ordinance (KZNCO) was observed on the site during the terrestrial biodiversity assessment which will have to be removed and transplanted prior to commencement of construction works on the site.

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

(i) An identification of all legislation, polices, 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
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 guided 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 were adhered to during the Environmental Impact Assessment including determining the need for an Environmental Authorization, the Application/Assessment Process to be followed, conduction of the public participation 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 were 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)	All necessary steps will be taken to reduce the impact of the project on the biodiversity of the receiving environment including

	Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	minimizing vegetation disturbance and transplanting plant species of conservation concern.
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)	This is applicable mainly due to dust during construction phase. The Developer as the authorization holder (should one be issued), must ensure that all aspects of the proposed development are adhering to requirements of this act throughout the project life cycle.
The National Water Act (No. 36 of 1998).	Department of Human Settlements, Water and Sanitation	Site assessments conducted thus far have not revealed any watercourses within the site. However, mitigation measures have been recommended against impacts on groundwater and runoff and a stormwater management plan has been put in place. DWS has been included as part of identified stakeholders and all recommendations from this Department will be incorporated into the different reports for implementation during the relevant stages.
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.
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	Some trees and shrubs within the site will have to be removed. The necessary precautions will be taken to minimize removal of trees especially those that are

		indigenous and of conservation importance. The relevant specialist will be engaged in this regard and all necessary permits in relation to this act will be obtained where and when necessary.
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, Amafa will be engaged for commenting and possible recovery and procedure to be followed for archeological resources will form part of the EMPr and BAR.
Noise Control Regulations (Regulations 154, 10 January 1992)	Department of Environment, Forestry and Fisheries (National Authority) Department of Economic Development, Tourism and Environmental Affairs (Provincial Authority)	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 project.
National Development Plan	RSA Government Departments, Municipalities and Public Entities	Members of the communities in proximity project area will be employed during the construction and operational phases. Community members may also be provided with the opportunity to hold managerial positions provided that they meet the requirements for such positions.
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.
Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000)	Department of Justice and Correctional Services	Adverts and site notices published to inform the general public and stakeholders of the proposed development which will allow them access into the decision making process. Once

		the decision is made, it will be circulated to I&APs and right to appeal the decision will be highlighted.
uMfolozi Local Municipality Integrated Development Plan (IDP), 2021/22	uMfolozi Local Municipality	The uMfolozi Local Municipality is predominantly rural as it consists of an impoverished population which depends on traditional forms of living such as subsistence farming and the burning of fossil fuels to make ends meet. The long term vision of the municipality is "*To improve the quality of life of all people of uMfolozi Municipality by creating an economically viable and sustainable development*". The Basic Assessment Process being undertaken will ensure that the proposed development is undertaken with reduced impacts on the surrounding environment and in a sustainable manner. The proposed development will assist in addressing some of the challenges faced by the Municipality as highlighted in the IDP.
King Cetshwayo Integrated Development Plan (IDP), 2020/2021	King Cetshwayo District Municipality	*"Supporting meaningful Local Economic Development (LED) initiatives that foster micro and small business opportunities and job creation"*. 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 ACTIVTY IN THE CONTEXT OF THE PREFERED 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 has 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) and Environmental Management Framework (EMF) for the area where the project is located.

The town of KwaMbonambi is located within uMfolozi Local Municipality and is the primary node of this municipality. The uMfolozi Local Municipality is predominantly rural and consists of an impoverished population which depends on traditional forms of living such as subsistence farming and the burning of fossil fuels to make ends meet. KwaMbonambi, although a primary node, has high poverty and unemployment rates, as well as underdevelopment with regards to infrastructure. However; people are still attempting to migrate as close as possible to the town in the hope of employment opportunities.

Therefore, it is imperative for the Municipality to propose and implement interventions to redress the aforementioned issues in order for the town to carry out its functions as a primary node. KwaMbonambi requires strategies of attracting public and private investment to improve infrastructure development and has been identified as a priority node for intervention area and is the only town within the whole of uMfolozi municipality. It has locational advantage due to being situated along the N2 therefore having facilities such as the proposed project can attract tourists along the N2 and reduce the inconvenience of travelling to neighbouring towns for such facilities and services by locals.

There is currently one service station in KwaMbonambi which is a very small Shell Garage located about 900m from the proposed development. There is also one main retail store within the town which is the Shoprite Usave store located about 1.3km from the site of the proposed development. The proposed development is therefore expected to provide a much needed “revival” to the area of KwaMbonambi providing required services and economic stimulation, thereby addressing some of the economic and social challenges facing the Municipality. A significant number of job opportunities can be expected for the construction and operation phases which will help alleviate poverty and improve livelihood for the affected communities. In addition, the presence of the proposed development will likely stimulate further developments around it which will further contribute to economic development of the area.

Looking at the guideline on need and desirability, and focusing more on planning tools like the IDP, SDF and EMF, these have been useful in the assessment. The said guideline provides a list of 14 aspects, which must be considered. Below the14 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).***

According to the IDP of uMfolozi Local Municipality, the Municipality needs to be proactive in proposing and implementing interventions to redress the issues such as the high level of unemployment and poverty as well as underdevelopment with regards to infrastructure in KwaMbonambi in order for the town to carry out its functions as a primary node. The proposed development will to some degree help towards this goal providing temporary employment during construction and permanent employment during its operation as well as encouraging more economic development in the area.
The site for the proposed development is zoned as a commercial zone and the proposed development falls within the list of activities that are allowed for within a commercial zone. Therefore in terms of spatial planning of the uMfolozi Municipality, the proposed development is in line with the plans of the Municipality.
Through the Environmental Impact Assessment Process (BAR) 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 in line with Global Sustainable Development Goals and the National Environmental Management Act (Act 107 of 1998).

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?***

The vegetation type of the site is the Maputuland Coastal Belt (CB1) which has a conservation status of endangered. However; according to the EIA Online Screening Tool, the site has low Plant Species and Terrestrial Biodiversity Sensitivity. In addition, according to the Terrestrial Biodiversity Assessment conducted for the proposed development, the site does not occur within a Threatened Terrestrial Ecosystem, does not overlap with any of categories listed under the Biodiversity Sector Plan (BSP) (eKZNW, 2016) and does not contain any Important Bird and Biodiversity Areas. Therefore environmental impacts associated with the proposed development can be reduced to low levels with implementation of mitigation measures. The Geotechnical assessment conducted on the site for the proposed development has concluded that the proposed development is feasible provided that recommendations made in the Geotechnical assessment report are implemented during the construction phase of the proposed development.

The proposed development which is centered on the development of a fuel service station and associated structures requires easy access and the site is easily accessible from the N2 and is visible enough to the N2 to allow it to not only attract locals of the KwaMbonambi Area but to also attract motorist travelling on the N2. The Developer intends for the proposed development to not only cater for small/light vehicles but to also accommodate trucks by providing a safe resting stop for long distance truckers. Large space is required to accommodate trucks which are large in their nature and the site/area has sufficient vacant space to allow the development to be of a suitable size for accommodation of trucks and all other proposed components of the development.

Therefore, the proposed development is viewed as being suitable for the area and at this point in time. This is especially the case as the proposed development will also provide a significant number of employment opportunities which are well needed at this time where a large number of people are unemployed while the cost of living keeps increasing.

In addition, as stated in the IDP, the town of KwaMbonambi is in need of developments which will improve the services that can be assessed by the communities in the town and for the town to perform its functions as the primary node of the Municipality. The location and timing of the project can therefore also be supported on the basis of the contribution that it will make to address this issue.

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).***

KwaMbonambi currently has high poverty and unemployment rates as well as the uMfolozi Local Municipality within which the proposed development is located. KwaMbonambi Lacks the facilities needed for it to perform its functions as the primary node of the uMfolozi Municipality. There is a single garage located in KwaMbonambi which is small and does not have a convenience shop. There is also only one retail store in the town. Therefore; the community and area does need the proposed development. It will help create jobs for the community and stimulate future economic growth/development in the area and assist in the town being able to perform its functions as the primary node of the Municipality. The service station will provide not only for vehicle fueling but will also provide a restaurant/takeaway outlet as well as the convenience store which will be open 24/7 allowing for customers to able to purchase essential items such as bread and milk at all hours of the day. Currently, there is no fast food outlet in KwaMbonambi and as such, the communities around the town depend on neighbouring towns of Richards Bay and Empangeni for access to fast food outlets. There is very little to do within the town in terms of entertainment/leisure activities for the surrounding communities and the proposed development will cater to this through the proposed entertainment area which will have a swimming pool.

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?***

There is no Municipal Sewer system in the area. The proposed development will make use of a septic tank system which will be designed in line with applicable standards and characteristics of the site and has been designed to accommodate the anticipated effluent capacities based on the components and size of the proposed development.

Electricity will be sourced through Eskom. A generator will be provided as backup power supply.

Water will be Municipal provided and the Developer will engage with the Municipality to confirm capacities. The Developer also aims to explore a borehole and rainwater harvesting to augment the water supply from the Municipality.

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 road network around the site is well developed and the site can therefore be easily accessed. All other Municipal infrastructure required for the development is available and may need to be maintained for the project and for the benefit of the surrounding community.

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

The high rate of poverty and unemployment are not issues which are unique to the project area. Rather; these are issues which are of great concern nationally, with alarming levels of youth unemployment with some struggling to get employment despite being well educated. Therefore, although the proposed development may not employ thousands of people, it will be contributing to addressing these issues of national concern. There will also be a ripple effect from the development as goods will need to be transported for the project such as stock for items sold in the convenience centre and the retail outlet with indirect benefits to other businesses which may need to employ more people with increased number of clients to service.

The diverse number of components that form part of the project will lead to greater number of employment opportunities being created with diverse skills to be required which creates a greater opportunities of employment.

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

According to the assessment conducted thus far, there is no watercourse within the site. An Unchanneled Valley Bottom wetland may be found within 100m to the eastern side of the site. However, due to the developments around the site including the existing roads, the proposed development would not have an impact on this wetland even if it is confirmed to exist.

There is one plant species of conservation concern that was observed within the site which is the *Aristea torulosa* which is a protected species but is assigned the Least Concern Category. Therefore a search and rescue for individuals of this species may be conducted prior to the commencement of construction on site. No animal species of conservation concern were observed on the site.

The ecological sensitivity of the ecosystem to be affected has a rating of medium and low sensitivity with no high sensitivity area to be affected. Therefore, the proposed development will not lead to significant impacts on the biodiversity of the area The site is also already zoned as a commercial zone which indicates that at some point, the site is likely to be developed for commercial related activities.

Easy access to the site will benefit the locals who will get employment on the project as it will be easy to reach the site for work purposes.

Therefore; the proposed development is an environmental option for the site. The only better option would be to leave the site undeveloped. However, the site is not of conservation importance and therefore the proposed development is a viable option for the site.

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 or SDF of uMfolozi Local Municipality or King Cetshwayo District Municipality. The area is zoned for commercial use and the components of the proposed development are allowed for within this zone. However, the battery centre and workshop may require an application for a special consent from uMfolozi Local Municipality.

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 EMF status of the site according to the King Cetshwayo District Municipality will be obtained from the Municipality through their comments on the draft BAR and this will be detailed in the final BAR. However, at this point, it is not expected that the proposed development would compromise the integrity of environmental management priorities for the area based on the assessments conducted on the site and that the site is zoned for commercial use.

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).***

The site is located close to the N2 which is a national road used for long distance travels linking to neighbouring countries such as Swaziland and Mozambique. This will allow for the proposed development to be visible to the N2 and therefore attract customers who make use of this road including truck drivers. There is a well-developed road network around the site including the P232 and Acacia Road which will be used to access the site during both construction and operation phases.

In addition, the site is located on a large property with ample space to allow for the development footprint to be large enough to also be able to accommodate trucks and all intended components of the proposed development.

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 vegetation type of the site is the Maputuland Coastal Belt (CB1) which has a conservation status of endangered. However; according to the EIA Online Screening Tool, the site has low Plant Species and Terrestrial Biodiversity Sensitivity. In addition, according to the Terrestrial Biodiversity Assessment conducted for the proposed development, the site does not occur within a Threatened Terrestrial Ecosystem, does not overlap with any of categories listed under the Biodiversity Sector Plan (BSP) (eKZNW, 2016) and does not contain any Important Bird and Biodiversity Areas.

Various land cover classes can be found within the site which include degraded habitat (dominant class), secondary thicket and secondary grassland with transformed landcover around the site on the sides bordered by roads. However, one plant species of conservation concern observed within

the site which is the *Aristea torulosa* which is protected by the protected by the KZN Conservation Ordinance (KZNCO). The Site Ecological Importance (SEI) for the study area ranges from low to medium with the larger portion of the site having low sensitivity with patches of medium sensitivity within the site.

The loss of vegetation within the area to be cleared cannot be avoided. However, the impacts of this loss will be mitigated by conducting a search and rescue to transplant protected plant species, minimizing the area that is cleared and revegetating disturbed areas post-construction. The size of the property also leaves room for future developments around the proposed development or the expansion of the proposed development.

The site is currently vacant and therefore; there will be no need for demolition of structures or relocation of people required for this project. The proposed site is located well within the target market which include the community of KwaMbonambi and motorists travelling on the N2.

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.)?

There are no expected significant impacts on air quality. There are also no expected significant noise impacts expected to the surrounding properties around the site. Therefore; the proposed development is not expected to affect people's health and wellbeing.

The proposed septic tank system could pose a threat if not managed accordingly through odour and possible contamination of ground water. Leaks from underground fuel storage tanks could also lead to underground water contamination. However; these impacts are unlikely to occur and can be prevented through following applicable impact mitigation measures and ensuring that all construction and installation of items such as the septic tanks and fuel storage tanks is done according to the applicable standards and guidelines.

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

There are no unacceptable opportunity costs expected to occur as a result of the project.

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

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

Although the proposed development will have some negative environmental impacts during construction including removal of indigenous vegetation, these impacts can be mitigated and reduced to low levels. There is one plant species of conservation concern which was observed during the site assessment and the recommendation is for this plant species to be transplanted prior to the commencement of construction activities as it is a common plant species and is of least concern. No faunal species of conservation concern were observed including avifauna with recommendation for retention of vegetation especially trees around the site which may provide habitat for common bird species observed during the site assessment. There were no wetlands or

any other watercourses observed within the site or the 500m radius. Therefore, the average significance of environmental impacts during construction is low.

The most significant negative impacts of the proposed development during the operation phase would mainly be contamination of surface and groundwater which can be associated with the storage and handling of fuel and the operation of the septic tank system. However; these impacts can be avoided through implementation of relevant mitigation measures and following of relevant standards and guidelines with regards to construction and management of fuel storage tank and septic tank systems. Therefore; overall, the proposed development is not expected to have impacts of high significance during both construction and operation phase. The proposed development will therefore not result in undermining of the site's and surrounding area's ecological integrity. In addition, the site is already zoned for commercial development and all proposed facilities are allowed for within this zone.

Therefore, the considering the low significance of impacts and no disturbance of local or provincial biodiversity targets/goals, the socio-economic benefits of the proposed development outweigh the negative environmental impacts of its approval and implementation provided that all applicable legislation is adhered to including recommended mitigation measures, conditions of the EA and relevant standards and guidelines.

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 that need to be undertaken as part of the planning to ensure successful implementation of the project and compliance to all relevant legislations, regulations and guidelines.

(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 phase will include storage and handling of dangerous substances including petrol, diesel and gas. Other operational aspects will include activities associated with operation of a car wash, motel, retail store and entertainment area which will include sale of alcohol.

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

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:

a. Property on which the activity is undertaken

The site where the proposed development is going to occur is located on the property Erf 1653 KwaMbonambi, uMfolozi Local Municipality, KwaZulu – Natal. The property has a total area of the property is 15.27 hectares and is zoned for commercial use.

There are no other properties considered for this development.

This property was chosen as it is ideally located close to the N2 and the town of KwaMbonambi. This means that the proposed development will be able to service not only the community of KwaMbonambi and surroundings, but it will also be able to service motorists using the N2. The N2 is used by long distance truckers and other vehicles. On long journeys, it is important to have regular points for refueling and resting. It is therefore important that there are regular refueling and resting points along the N2 and the location of the property will allow for the proposed development to provide an alternative refueling and resting point along the N2.

The service station located on the N2 that is closes to the site is the Engen North Coast 1Stop-North which is located about 33km from the site near Richards Bay/Empangeni. The proposed development will therefore provide for those who may miss this service station or feel that it is too full at that point in time. In addition, the size of the property, will for the proposed development to make space not only for light vehicles but for trucks too which are often not accommodated on service stations but require safe stopping points for resting during their long journeys.

The town of KwaMbonambi is the only formal town in the uMfolozi Local Municipality but it has a high poverty and unemployment rate. The town and the municipality at large, is in need of projects that will stimulate economic growth. The proposed development will provide needed employment opportunities which will to some degree contribute to the alleviation of poverty and help improve employment rates. In addition, the presence of the proposed development on the area may attract other developments to the area with the proposed development therefore further stimulating economic growth in the area and

Municipality. In its current state, the town of KwaMbonambi is unable to provide all the necessary services that it should offer as a primary node and the proposed development will help improve this situation.

Currently there is one very small service station (Shell) in the town which is located about 900m from the site. The property was therefore also chosen on grounds that it is located in an area that is in need of a the type of development that is proposed.

The three main factors that have motivated for the preferred property can therefore be summarized as being:

- Favorable Location for easy access and capture of a greater market.
- Availability of ample space available to use for the proposed development in order to fit all intended facilities including a truck stop that requires big space.
- Property located in an area where services to be offered are needed and where economic development is needed.

b. Type of activity undertaken

The proposed development will include construction of a fuel service station. This is a required service in the area as there is only one service station at present which is very small. The service station will also have a takeaway food outlet of which currently there are no takeaway stores in the town of KwaMbonambi and the surrounding community therefore access takeaway outlets from Richards Bay (about 20km away) or Empangeni (about 30km).

The existing service station does not have a convenience store. This is a service that is usually useful for those passing by on their way to other areas as they can quickly purchase beverages and other items for their trips. A convenience shop can also be very useful to locals for purchase of items such as milk, bread and airtime during the times where the shops/retail stores are closed as a convenience store stays open 24/7. The proposed service station is therefore planned to have a convenience shop.

The site for the proposed development is located close to the N2 which is used to travel to different places including Swaziland and Mozambique. There are also a number of tourist attractions located not too far from the KwaMbonambi. The proposal to include a BnB is therefore to accommodate long distance travelers who may decide to rest overnight and continue with their journey the following day. There may also be those who will choose to stay at the BnB and explore tourist attractions in surrounding areas. Small towns such as KwaMbonambi generally lack entertainment that is accommodative of all age groups. This contributes to the youth being involved in early alcohol consumption and crime. Hence the proposal for the development to include an entertainment area which will include a swimming pool, entertainment area, kid's indoor play area and will also serve as a bar and restaurant. This will provide entertainment to the surrounding community and can be expected to be especially beneficial for the youth.

As previously mentioned, the town of KwaMbonambi has one formal retail store which is the Shorprite USave which offers limited services. For services not offered in this retail store, customers have to travel either to Richard's Bay or Empangeni which are both located a significant distance away from KwaMbonambi. The proposed retail store will therefore provide customers with an alternative store from which they can shop and will likely also offer some items or services which the community currently has to travel long distances to access.

c. Design and layout of the activity

The site layout is attached as **Appendix A (ii)**.

The layout for the proposed development took into consideration, all the findings of the specialist studies conducted and the advice of the project team including architects and engineers. Once all comments have been received, the layout may be amended as per recommendations, if any.

d. Technology to be used by the activity

The buildings will have to comply with the National Building Standards and Regulations. The proponent will take into account the various technologies available such as water harvesting and energy efficiency mechanisms during construction. 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.

e. Preferred site

The preferred site for the proposed development is located close to the P232 and close to the N2 off-ramp. This will allow for the proposed development to be visible to the N2 for passing motorists to notice it. The site will be accessed through Acacia Road which branches off P232 and therefore the site has been positioned to allow for easy access. The site is zoned for commercial use which allows for all components of the proposed development which takes away the costs that would be incurred if the site needed to be rezoned for the proposed project.

Easy access is especially important for customers coming off the N2 as motorists making use of the N2 would not be keen to branch too far off the N2 for the purpose of accessing the service station.

f. No - go option

In absence of the proposed development, the environment within and around the site will remain unchanged. Environmental impacts that can be associated with the proposed development such as vegetation and traffic impacts will not occur.

The proposed development has some positive impacts associated with it especially in terms of socio-economic development. These opportunities will be lost should the proposed development not be considered favorably. Furthermore, the developer has already invested money into the project through acquiring necessary expertise for the planning phase including specialist studies conducted for the site. The money spent thus far will therefore be lost if the project is not able to come to fruition. The town of KwaMbonambi will miss out on the opportunity to improved facilities for the benefit of the surrounding community and the uMfolozi Municipality at large.

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

i. Details of all the alternatives considered

Property on which the activity is undertaken

The proposed development is intended to benefit the area of KwaMbonambi and the uMfolozi Municipality. The property was therefore chosen on basis that it is close to the town of KwaMbonambi and has a large area and zonation that allows for the proposed development. The preferred property is motivated for in detail in the previous section.

No other properties were seen to be suitable and worth consideration within the area. This is especially the case as the project also looks to attract customers from the users of the N2 to capture a larger market and ensure that the project is financially sustainable.

Figure 3: Google Earth Image showing a rough outline of the property within which the proposed development is located indicated with the orange outline.

Location of the site within the property

The site for the proposed development is located within Erf 1653 KwaMbonambi, uMfolozi Local Municipality, KwaZulu – Natal.

The nature of the proposed development requires a site that is easily accessible both through vehicular transportation and also by foot. The proposed development also requires quick and easy access from the N2 in order to maximize on the opportunity to attract customers from users of the N2.

The preferred location of the site within the property is close to the P232 and the N2 off-ramp as indicated in Figure 2 (Page 9). This will allow for easy vehicular and pedestrian access. The location of the site also means that the proposed development will be easily visible to vehicles passing on the N2. Therefore the site within the property has been chosen to meet the requirements for the nature of the development especially in terms of easy access to the site.

In addition, the Terrestrial biodiversity study indicated that the area where the site is located has a low to medium ecological sensitivity with no high sensitivity area to be affected by the proposed development. Therefore, with implementation of impact mitigation measures, the location of the site within the property will not result in significant detrimental impacts on the overall biodiversity of the area.

<u>Other Locations of the Site Considered</u>

Figure 4: Google Earth image with green polygon highlighting a potential alternative site within the property (orange polygon).

The above image shows an alternative location of the site within the property. However, this and other possible options were not considered for the proposed development. The main aim in identification of

the site, was to make sure that the site is closes to the access roads that will be used to access the proposed development. The preferred location allows for the quickest and easiest access for both vehicles and pedestrians. Therefore, this site location option and any other options that could have been considered, were not considered as they would be further away from access points which can discourage customers and therefore affect the success/financial viability of the proposed development.

Type of activity undertaken

Construction of the Service Station Only

The main component of the proposed development is the fuel service station. The proposed development could therefore be considered for the development of the service station with the convenience store, takeaway store, truck-stop and battery centre with workshop. This option would however limit the services that could be offered by the proposed development in the area where it is located. Therefore, this was considered as an unfavorable option.

Construction of other components excluding the Service Station

The proposed development will also include a BnB, Retail Outlet and Entertainment Centre. As previously mentioned, there is only one formal retail store in the town of KwaMbonambi hence the proposed development includes a retail outlet. The site for the proposed development is ideally located close to the N2 which stretches from Cape Town to the Mozambique border. The N2 is therefore a busy road used for both tourism and business travel. A lot of commuters making use of this road are long distance travelers some of which require overnight rest on their long journey and this is the main target market for the BnB. However, the accommodation business tends to be a seasonal business where bookings can be few over certain periods of the year that fall outside holiday periods and might therefore not be sustainable as a stand-alone project.

In small towns such as KwaMbonambi, there is very little for the youth to do in terms of entertainment. Therefore, the proposed entertainment area can provide the youth and other community members with something to do over the weekend and during holidays. In addition, the entertainment area would also benefit those staying at the BnB/motel especially guests who stay for longer than just a night.

The proposed development is intended for the maximum benefit of locals and other customers hence the inclusion of various services that would benefit different customers. The service station is the focal point of the proposed development especially in terms of financial viability of the proposed development. It is the main attraction and service of the project and therefore, it would not be desirable to exclude the service station from the activities that form part of the proposed project. It would however, also not be desirable to remove the other components and only construct a service station as this would limit the potential benefits of the proposed development. In addition, removing some activities from the proposed development will also limit employment opportunities during both the construction and operation phase of the proposed development.

Design and layout of the activity

The layout alternative considers the placement of the different structures that for part of the proposed development, within the site. The factors that are considered for the layout includes sensitive areas on and around the site and input/recommendations from stakeholders. The final layout has to be one that allows for the avoidance of sensitive areas including watercourses and places of biodiversity significance to ensure that the project does not undermine the ecological integrity of the site and does not compromise biodiversity goals on a local and regional scale. In addition to consideration of environmental sensitivities, the financial cost implications of the layout also has to be considered to ensure that implemented layout does not push project costs beyond what is available for the developer and that the financial viability of the project is not compromised.

As it stands, the terrestrial biodiversity assessment conducted has shown the ecological sensitivity index for the site falls within low and medium sensitivity with no high sensitivity index within the site. There has therefore been no need to amend the layout at this stage or consider alternative layouts. However; at this stage, the BAR is being circulated for stakeholder comments and may therefore be amended based on comments/recommendations received from different state departments/I&APs.

Technology to be used by the activity

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.
The buildings will have to comply with the National Building Standards and Regulations. The proponent will take into account the various technologies available such as 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.

No – go option

The no-go option is an option of not undertaking the proposed activity and its inherent alternatives. In this instance, 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 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.

In some cases, the no-go option may be the only realistic alternative and it becomes a major area of focus where negative environmental impacts have high significance. It is on the basis of this scenario that the no-go option has to be considered in all projects including KwaMbonambi Service Station. This alternative, is in this case not seen as a favourable alternative as the proposed development is not expected to have negative impacts that are of high significance while the positive socio-economic impacts of the development are of high significance.

The proposed development will create employment opportunities during the construction phase and permanent employment opportunities during the operation phase. The no-go option is therefore not considered as a favourable option in this regard as it will mean that the unemployed that would have benefitted from the proposed development will lose out and will continue to face the same challenges in terms of income and livelihoods which may have been alleviated had they benefited employment from the proposed development. The local small businesses would also benefit during the construction phase with some of the business to perhaps be subcontracted. Informal traders could benefit during the construction phase selling food and other items to construction workers. All these opportunities will be lost if the proposed development is not considered favourably.

In addition, people who will be working on the service station, retail centre and other facilities during the operation phase will require accommodation which may include moving closer to their place of work. This will create opportunities for owners of properties where rentals are available which will further stimulate economic growth within the project's area of influence.

The community around the town of KwaMbonambi will benefit from the proposed development and services to be offered. There is only one service station in the town of KwaMbonambi which offers limited services and there are no fast food / takeaway outlets. The communities around KwaMbonambi therefore depend on neighboring towns of Richards Bay and Empangeni in order to access a wider range of services which they should be able to access from their town.

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 area. 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.

Should the proposed development not be considered favourably, the environmental conditions of the site will remain the same. No vegetation will be removed. However, of the plant species within the site, only (1) protected species occurs throughout the property and which is common to this area but is protected under the provincial conservation ordinance. The site has medium-low ecological importance and does not have any areas of high sensitivity. The site for the proposed development is currently zoned for commercial use and is therefore likely to be developed in the future.

Although the proposed development has some negative impacts, the no-go option is no considered as the ideal alternative for the site. The negative environmental impacts can be reduced to minimal levels and therefore will not have significant impacts on the biodiversity and ecological integrity of the site. Whereas on the other hand, the proposed development will have significant benefits for the community and to some degree, the Municipality within which it is located.

*ii. 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 will follow the standard public participation process as contemplated under Regulation 41 of the 2014 EIA Regulations, as outlined below.

- The meeting was held with the developer, ward Cllr and Leadership of the Umfolozi Local Municipality on 6 December 2021 where the project was introduced – see attached attendance register (**Appendix B2**).
- The project was presented to Umfolozi Local Municipality Council on 25 January 2022 where the project was presented and accepted in principle (see attached minutes, agenda and presentation on **Appendix B3**).
- The project was presented to KwaMbonambi Taxi Association on 3 February 2022 at11 am, where the project was supported (see attached attendance register on **Appendix B4)**
- The ward councilor for the area that the proposed development is located has been informed of the proposed development. The public meeting was held on 3 February 2022 at 13.00 (see attached agenda, minutes and attendance register on **Appendix B5**).
- Site notices were erected around the site in isiZulu and English on 08 August 2022. Some photos of site notices which were erected are attached as **Appendix B1**. Guidelines of the EIA Regulations and the Public Participation Guidelines were followed with regards to the size and other aspects of the site notices.
- A newspaper advert will be placed in the Zululand Observer.
- The draft Basic Assessment is being circulated to all stakeholders, Interested and Affected Parties (I&APs) and state department for the 30-day commenting period as part of the Public Participation Process. All comments received will be attached to and incorporated in the Final BAR and EMPr.

*iii. 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***

This is the Draft BAR being circulated to I&APs, stakeholders, and state departments as per the table below giving them the opportunity to comment on the proposed development. The comments and responses to comments received will be recorded in the comments and response report which will be attached to the final BAR as **TABLE 7**. In addition, the EAP will amend both the BAR and EMPr to incorporate/address comments received by the date of submission of the final BAR.

Table 3: Table showing identified stakeholders, I&APs and State Departments were consulted and given the 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	Mr Andy Blackmore	P.O. Box 13053, Cascades,3202 Tel:0338 451 349 Email: andyb@kznwildlife.com
KwaZulu – Natal Amafa and Research Institute	Mr John Pakwe	195 Langalibalele Street, Pietermaritzburg, 3201 Tel:033 3946543 Email: john.pakwe@amafainstitute.org.za
Department of Human Settlements, Water & Sanitation	Ms. K. Methula	P.O. Box 1018 Durban, 4000 Tel: 031 336 2700 Email: Methulak@dws.gov.za
KZN Department of Transport	Ms Judy Reddy	224 Prince Alfred Str Pietermaritzburg 3200 Tel: 033 355 8600 Email: Judy.Reddy@Kzntransport.gov.za
uMfolozi Local Municipality	Mr G. Ceza	25 Bredelia Street Kwa-Mbonambi 3915
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 - Forestry Regulations & Support	Ms. Thabisile Xulu	185 Langalibalele Str., Old Mutual Building, Pietermaritzburg, 3200 Tel: 033 3927722 Email: ThabisileX@daff.gov.za
ESKOM	Samantha Naicker	Durban – New Germany 031 710 5183 / nselesi@eskom.co.za
South African National Road Agency Limited (SANRAL)	Regional Manager / Thobile Duma	58 Van Eck Place Mkondeni Pietermaritzburg, 3200
South African Pulp and Paper Industries Limited (SAPPI)	Mr Ngcamu / Mr Thulani Khumalo	0836617063 / 0824958272
Ward Councillor	Ward 2 Cllr Mthsali	0737927359
iSimangaliso Wetland Park	Siboniso Mbense	iSimangaliso Wetland Park Authority The Dredger Harbour Private Bag X05, St Lucia 3936 Tel:035 590 1633 Email: siboniso@isimangaliso.com

iv. *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 property for the proposed development is located I an area that is currently zoned as a Commercial Zone. All components of the proposed development are allowed within the indicated zone and therefore, there is no rezoning or special consent required for the proposed development. The site is currently vacant.

There is an open space church gathering area located just outside the site. This gathering space is located just off Acacia Road. About 550m from the site is the KwaMbonambi Secondary School. The centre of KwaMbonambi Town is located about 1.3km from the site with the existing Shell Service Station being about 900m from the site.

Climate

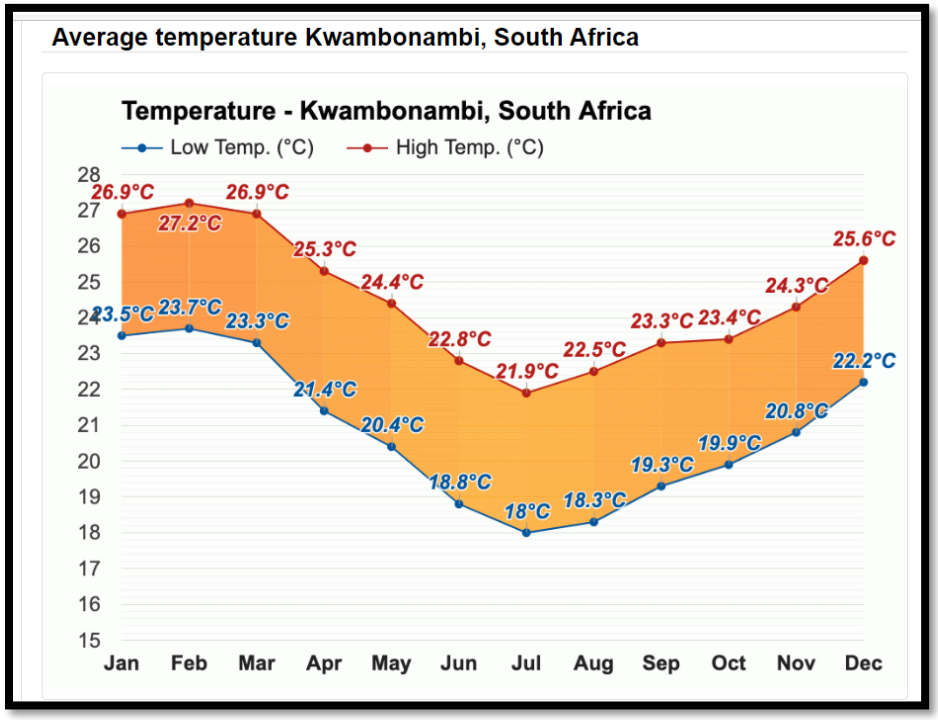

Figure 5: Graph showing average monthly temperatures for KwaMbonambi (source: www.weather-atlas.com).

In KwaMbonambi, during the entire year, the rain falls for 196.2 days and collects up to 699mm (27.52") of precipitation. With an average high-temperature of 27.2°C (81°F) and an average low-temperature of 23.7°C (74.7°F), February is the warmest month. The month with the most rainfall in kwaMbonambi, South Africa, is December when the rain falls for 21.8 days and typically aggregates up to 90mm (3.54") of precipitation. The area is characterized by hot summer and mild winter with no snow experienced during the winter periods.

Description of ecological baseline

Vegetation

The proposed development is situated within a small town, which is entirely enclosed by timber plantations on all sides. During the desktop assessment, it was confirmed that the study area does not overlap with any of categories listed under the BSP (eKZNW, 2016).

The National Environmental Management: Biodiversity Act (Act 10 of 2004) lists Threatened or Protected Ecosystems, in one of four categories namely; Critically Endangered (CR), Endangered (EN), Vulnerable (VU), or Protected. According to the "Schedule of Threatened Terrestrial Ecosystems in South Africa" (promulgated under NEMBA Government Notice 1002 of 2011), the site does not occur within a Threatened Terrestrial Ecosystem.

The study area contains only one of the national vegetation types, namely the Maputuland Coastal Belt (CB1) which is endangered.

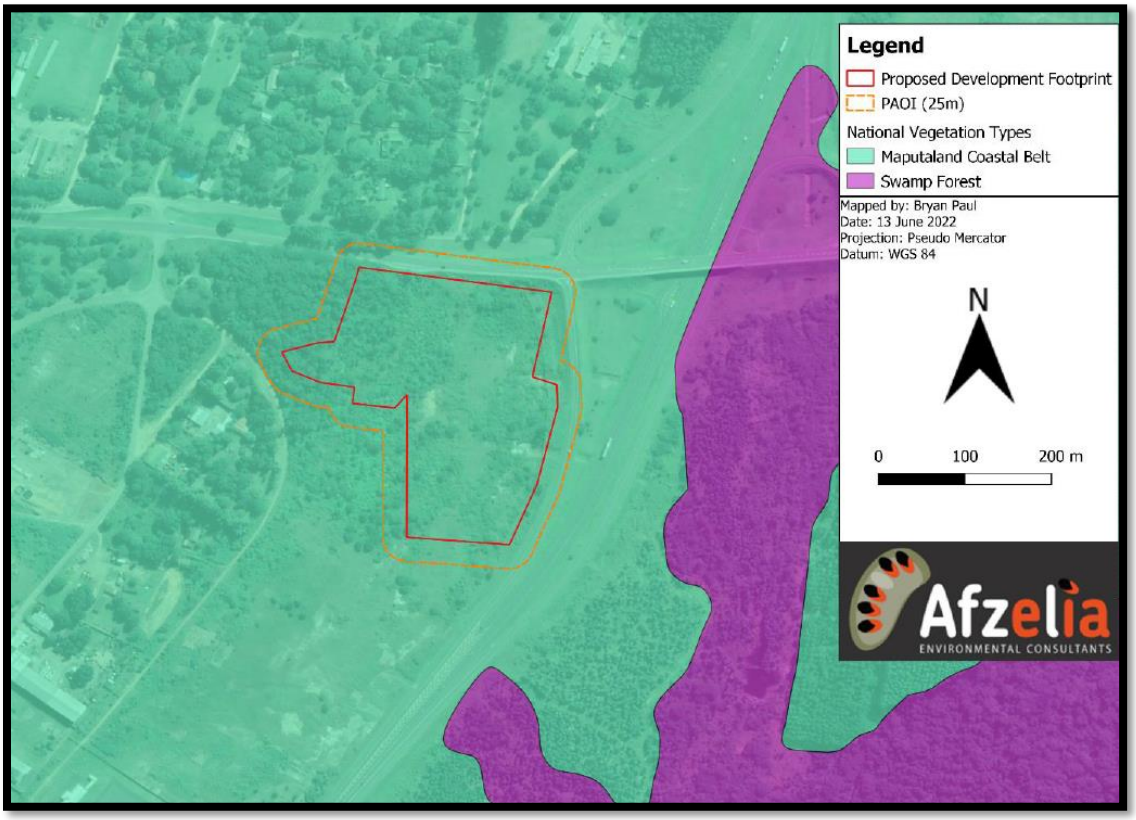

Figure 6: Illustration of applicable area s of conservation importance found within the proposed site and nationally protected freshwater habitat (Afzelia, June 2022).

This vegetation unit is characterised by a number of habitats namely forest, thicket and grasslands. As a result of the construction of the N2 highway, the establishment of timber plantations nearby and the expansion of the town of Kwambonambi, intact habitat is infrequent and often extremely fragmented. In the context of the site, no primary vegetation was observed, and all habitat consisted of secondary habitat, which either resembles degraded thicket or secondary grassland.

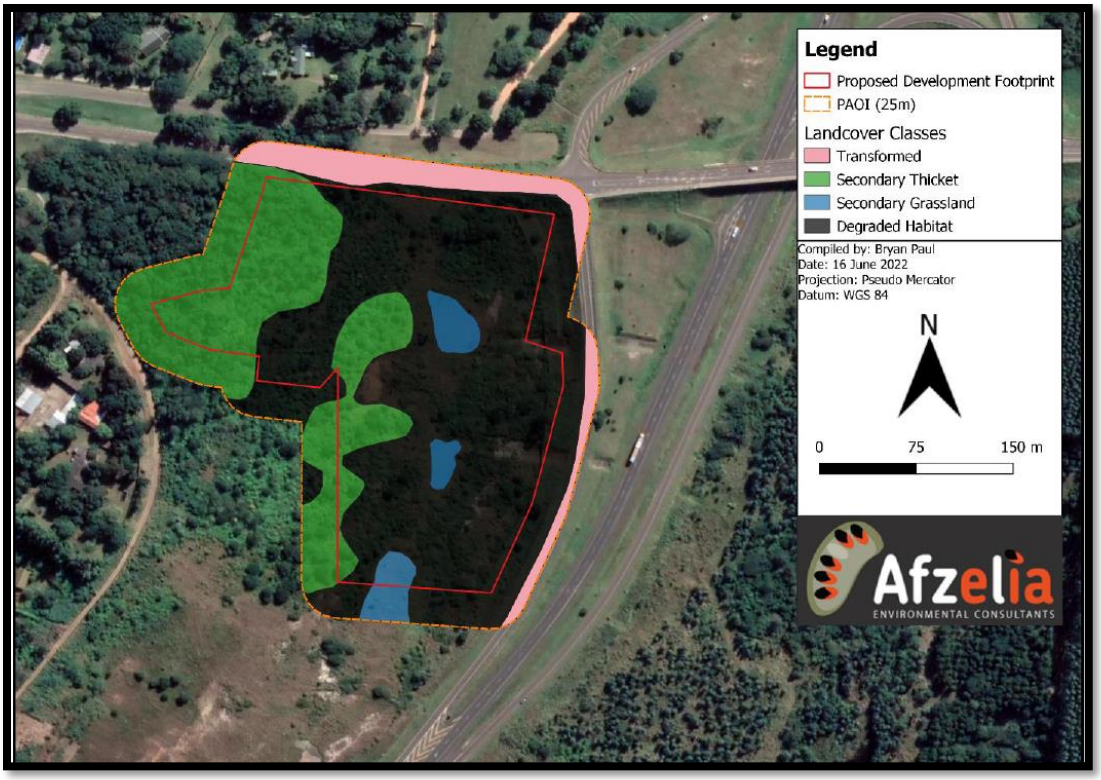

Figure 7: Land cover map of the existing land cover classes identified during the field assessment (Afzelia, June 2022).

Secondary Grassland

There were three (3) distinct patches of secondary grassland that were observed along the centre-line of the study area. Smaller patches do also exist between dense stands of alien plant species and cleared open spaces used for subsistence farming, but are not noteworthy. The plant communities found within

these areas are dominated by common graminoid species, which form good cover will a moderate basal height.

Figure 8: Snapshots illustrating the secondary grassland habitat present within the study area.

Grass species observed on the site include species like *Ischaemum fasciculatum*, *Cymbopogon pospischilii*, *Trachypogon spicatus, Tristachya leucothrix*, *Melinis repens* and *Imperata cylindrica* with patches of *Eragrostis superba* occurring infrequently

Transformed Areas

Transformed areas represent parts of the study area which has little to no remaining habitat, in some areas being completely cleared with no ecological value. Land cover such as roads and bare open ground have been included under this category.

Secondary Thicket

This category refers to portions of the study area which contain a woody plant community component and range from open (consisting mostly of a few well-spaced *Vachellia sp.)* to closed thicket, which consists of a species which would have been planted adjacent to the road surface and after the cessation of growing commercial timber on this property. In most cases the open thicket is dominated by Alien Invasive Plant Species (AIPS), where indigenous species compete for space, nutrients and access to light. In more closed thicket, the fringe areas are dominated by AIPS, which shifts to natural after 10 to 15m. On the northern most boundary of the site canopy forming trees like *Albizia adianthifolia* var. *adianthifolia* track an existing stormwater canal found adjacent to the road surface.

Figure 9: Image illustrating secondary thicket observed on site.

Degraded Habitat

This habitat accounts for the largest landcover category as illustrated in Figure 7 above. Its species composition is representative of disturbed veld, mostly consisting of alien plant species such *as Lantana camara*, *Chromolaena odorata* and *Solanum mauritianum* which form dense, and often impassable stands within the study area. There is also subsistence farming which takes place within the proposed development footprint, whereby large patches of land have either been cleared for future sowing, or contain legumes which would be harvest in June. The establishment of these subsistence croplands have resulted in the removal of grassland habitat which would presumably be occupied by alien plant species when not in use.

Figure 10: Image showing a patch of degraded habitat within the project site area.

Plant Species of Conservation Concern (SCC)

During the terrestrial biodiversity assessment conducted on the site, there was one (1) species of conservation concern that was observed which is protected by the KZN Conservation Ordinance (KZNCO). This species is the *Aristea torulosa* which is has a conservation status of Least Concern (LC).

Summary

The site is located within Maputuland Coastal Belt (CB1) which is endangered but the specialist assessment did not observe any primary vegetation within the study area and as such impacts to this ecosystem will be regarded as limited, provided that all mitigation technique listed within the report are adequately implemented. There was *one* (1) protected plant species (in terms of the KZN Provincial Conservation Ordinance (PCO) observed on site which is the *Aristea torulosa*. Some of the vegetation on the site, although not of conservation importance, provide habitat for birds and should therefore be preserved during construction.

Fauna

An understanding of species abundance, distribution and occurrence is highly valued when considering the implementation of conservation strategies. This knowledge is fundamentally linked to planning land-uses and ensuring sustainable developments within South Africa.

According to the desktop study conducted, 22 species of mammals are recorded for the site with 2 of these being species of conservation concern. In terms of herpetofauna, the general project area is expected to have a moderately high herpetofauna diversity with approximately 70 individual species recorded 3 of which are SCC. A total of 133 bird species have been recorded within the project's locus.

However, according to the site assessment conducted, no mammal or herpetofauna species were observed within the project footprint and no bird SCC were observed with all species recorded being common species that are frequently observed throughout KwaZulu-Natal. Species of Conservation Concern recorded as potentially occurring within the area must be considered when constructing and operating the proposed facility.

Ecological Sensitivity

Present Ecological State (PES) or ecological health of ecosystems is assessed mainly using vegetation as a biological indicator as vegetation tends to respond rapidly to disturbance. Non-conservative species that are not sensitive and have a higher tolerance to disturbances and broad distribution ranges tend to be more common on highly disturbed areas as conservative plant species are highly sensitive, have narrow distribution ranges and low tolerance to disturbance and therefore the first to be eradicated in disturbed conditions.

The site for the proposed development consists of low and medium ecological sensitivity as can be seen in Figure 11 below with very low SEI found outside the site mainly along the roads (P232 and N2.

Table 4: Summary of the Site Ecological Importance (SEI) assessment

Habitat	Conservation Importance (CI)	Functional Integrity (FI)	Biodiversity Importance (BI)	Receptor Resilience (RR)	Site Ecological Importance (SEI)
Secondary Grassland	Medium	High	Medium	Medium	Medium
Secondary Thicket	Medium	High	Medium	Medium	Medium
Degraded Habitat	Medium	Low	Medium	High	Low
Transformed	Medium	Low	Low	High	Very Low

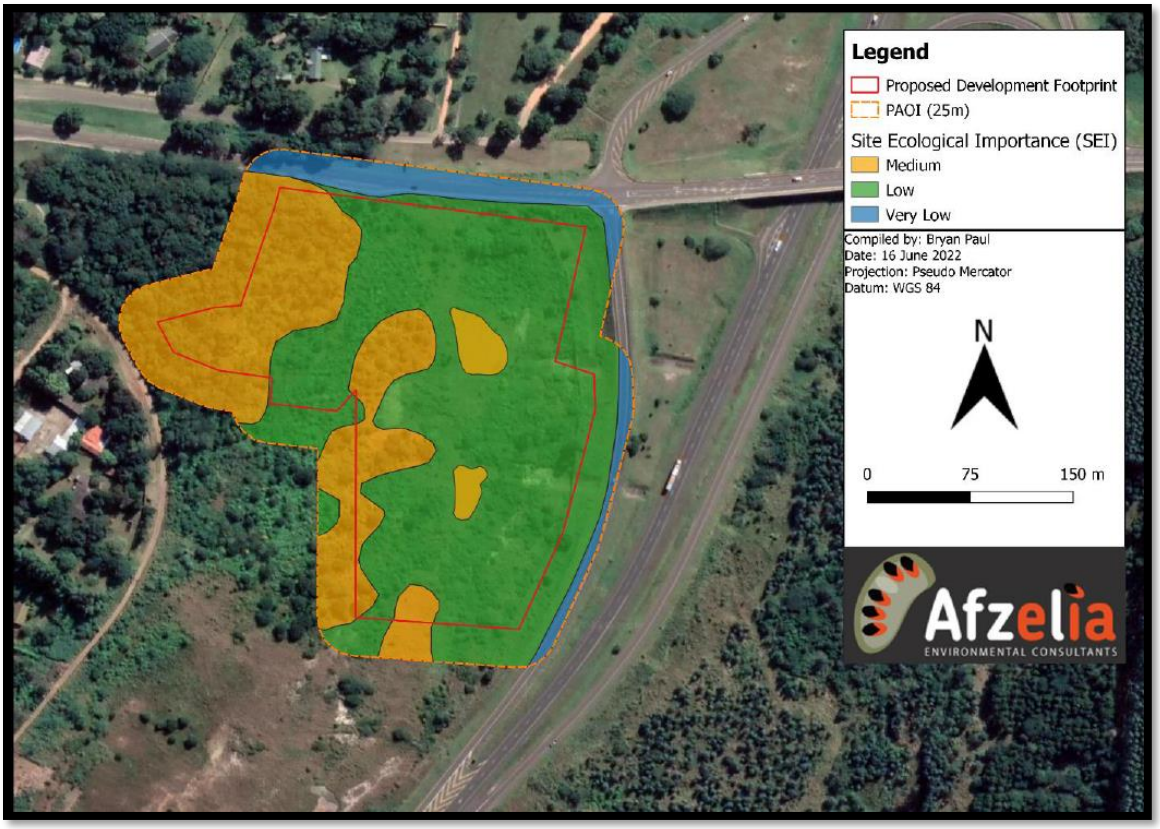

Figure 11: Site Ecological Importance of the proposed development. (Source: terrestrial biodiversity impact assessment study conducted by Afzelia, June 2022).

Soil and Geology

According to the 1:50 000 scale geological map provided by the Council of Geoscience, the site is underlain by sand and aeolianite of KwaMbonambi Formation.

The upper subsoils on site comprised the following soil profiles:

Aeolian Horizon (Wind Deposit)

The aeolian horizon was noted through the upper profile of the excavated test pits. The material was intercepted from natural ground level down to a maximum depth of 2.50m BEGL. The horizon was profiled as moist/very moist, greyish pale brown/pale brown/dark grey, loose to medium dense with depth, silty fine grained sand/slightly silty fine grained sand with minor rootlets.

Alluvial Horizon (River Deposit)

An alluvial horizon was generally noted to be overlain by aeolian horizon throughout the site. The material was intercepted from a minimum depth of 0.30m down to a maximum excavation depth 2.50m BEGL. The horizon was profiled as moist, reddish orange speckled orange/yellowish orange mottled red, soft/ firm to stiff with depth, intact, slightly silty clay.

Groundwater and Hydrology

During the geotechnical site investigation, groundwater seepage was intercepted at one of the test pits (TP1) at a depth of 2.10m below natural ground level. Surface water was also noted in isolated areas of the development area. The investigation was carried out in April which is one of the driest months in KwaMbonambi. Therefore, there is a possibility that during periods of prolonged rainfall, particularly during the summer season, groundwater levels may ascend towards the surface thus creating a perched water table during these periods. Although the perched water table was noted, a desktop assessment of the site did not show any wetlands or watercourses within the site or project footprint with an unchanneled valley bottom wetland recorded within 500m radius of the site. No vegetation typical of wetland areas was observed on the site and therefore no wetland assessment has been conducted.

Although the desktop revealed an unchanneled valley bottom wetland within 500mof the site, the site is surrounded by plantation and as such, this wetland is unlikely to still exist due to anthropogenic activities including the construction of the road(N2) and the plantations.

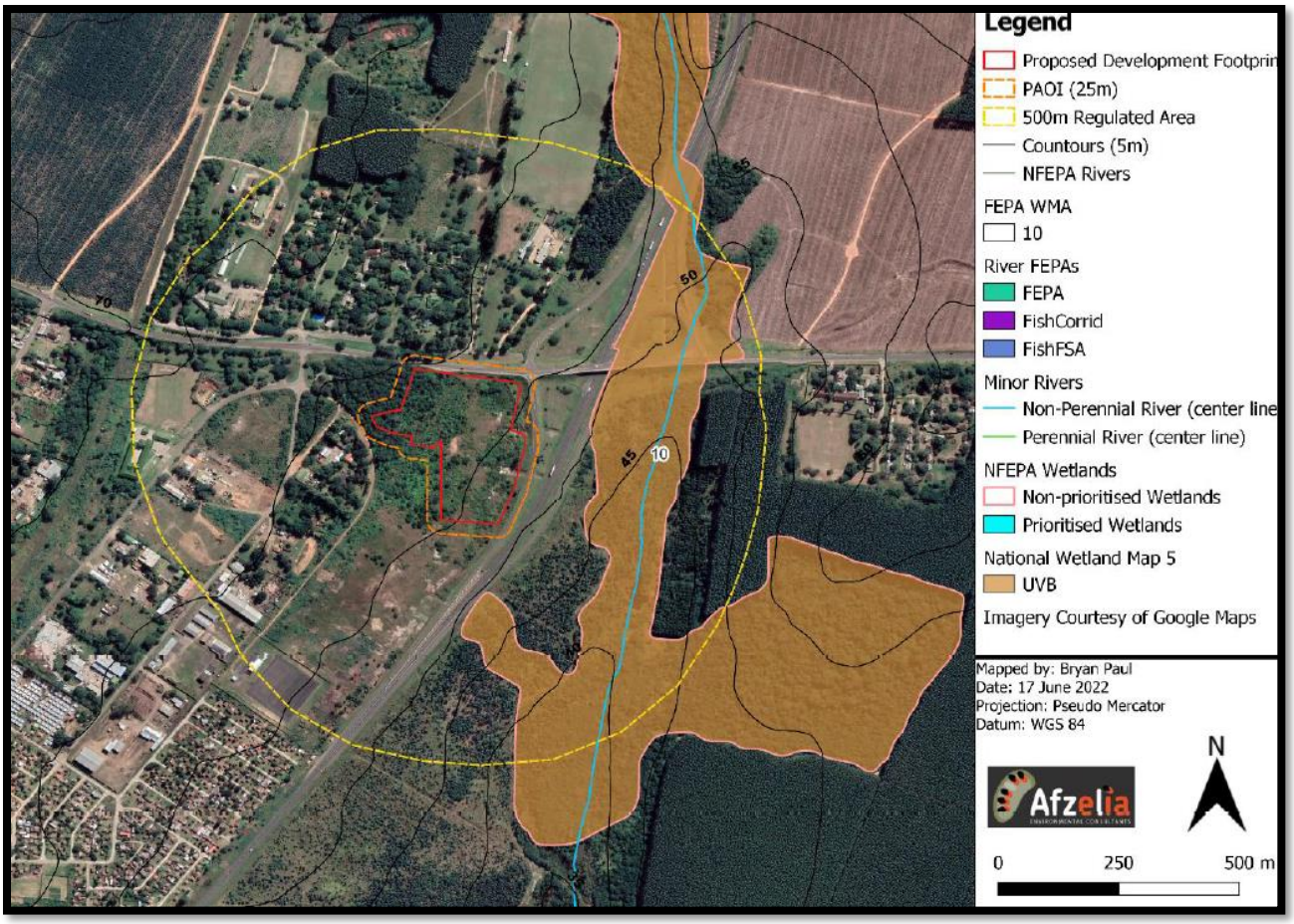

Figure 12: Illustration of the existing hydrological features associated with the proposed development (south).

Social attributes

The site for the proposed development is located within uMfolozi Local Municipality which is predominantly rural and challenged with high unemployment and poverty rates. KwaMbonambi is the only formal town and a primary node of the uMfolozi Municipality. However, the town is small and rural lacking a lot of services that a town, especially one serving as a primary node, should have. Although there are very little opportunities in the town of KwaMbonambi, some community members continue to emigrate towards the town in hope to better their lives.

Income Distribution

According to the 2019 SDF of uMfolozi Local Municipality, the majority of the households within the municipality have an income that is within the R9600-R19600 per annum bracket with only a few households earning more than R19600 per annum. Furthermore a large number of the households is either earning less than R9600 or has no income at all. With the overall income of the households being very low; major constraints are place on the municipality to build a proper tax base which can be utilised for provision & maintenance of services. Without outside funding, the municipality will not be able to implement nor maintain any new services. It is therefore essential that the municipality implement initiatives to grow its tax base, by implementing successful economic development initiatives.

Employment Status

22% of the uMfolozi Municipality population is employed while 17% of the population is unemployed. However, although the percentage employed is greater than the percentage unemployed, a high percentage (40%) of the population is not economically active indicating that the population is dominated by individuals far too young and too old to get formal employment.

Heritage, historical features, and cultural aspects

There were no heritage, historical or cultural features observed within the site. However; there is a worship ground/place for a Shembe Church located on a property adjacent to the property of the proposed development. However, the ownership of this property is still under the uMfolozi Municipality. The leaders of the church are aware that the Municipality may at any point decide to use this piece of land and if this occurs, the church will have to be relocated to another property. A letter from the Municipality stating this had been attached as **Appendix B6**.

Figure 13: Image showing Shembe place of worship on property adjacent to the site for the proposed development.

v. *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 impacts associated with the proposed development cannot be reversed unless the project is decommissioned. However, the impacts can be reduced and compensated for as indicated in the impact statement/assessment table below. For example: the removal of vegetation may include removal of indigenous plant species but such plant species can be transplanted prior to the commencement of construction activities.

(bb) may cause irreplaceable loss of resources

There is no irreplaceable loss of resources expected to occur as a result of the proposed development. Mitigation measures will provide for the avoidance, reduction and remediation of impacts to ensure that the overall integrity of the surrounding environment is preserved to allow for continued ecosystem functionality.

(cc) can be avoided, managed or mitigated

Some impacts can be avoided such as avoiding removal of identified indigenous vegetation with most impacts to be managed and mitigated with implementation of measures to ensure that such impacts are minimal and or compensated for.

i. 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 5: Table showing significance rating scale.

SIGNIFICANCE VALUE	SIGNIFICANCE WEIGHTING	DESCRIPTION
<10	**Negligible**	The impact is very small to absent
10 - 20	**Low**	Where this impact would not have a direct influence on the decision to develop in the area.
20 - 50	**Medium**	Where the impact could influence the decision to develop in the area unless it is effectively mitigated.
50 - 70	**High**	Where the impact must have an influence on the decision process to develop in the area.
>70	**Very High**	Where the impact may constitute a fatal flaw for the project.

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.

Table 6: Table of Evaluation criteria ranking

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 for site establishment in an area populated with vegetation.
- **Indirect impacts:** secondary impacts resulting from direct impacts, i.e. erosion resulting from destabilised soils due to clearing of vegetation.
- **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 of such.

vi. 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 thus far for this application.

vii. *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

The main positive impacts of the proposed development are the socio-economic benefits of the proposed development which will be experienced during the construction and especially during the operational phase of the proposed development. In addition to temporary employment opportunities during the construction phase, the proposed development also promises a significant number of employment opportunities during the operation phase of the development. In addition, the presence of the proposed development on this location, will most likely stimulate further developments around the site which will further contribute to the socio-economic development and growth of the town of KwaMbonambi and the uMfolozi Municipality at large.

Negative impacts of the activity

There is a Shell Fuel Station located about 900m from the site of the proposed development. This service station is currently the only service station within the town of KwaMbonambi. The proposed development will include a service station which will also have a convenience store. This will likely result to loss of sales and therefore profit for the existing service station. This service station is currently in a poor condition and may lose sales in such that it does not make enough income to continue operating in the same area. However, the existing service station is likely to be able to continue operating and servicing people accessing the KwaMbonambi Town. Failure or success of the existing service station will mainly be dependent on the ability of the service station to improve its services and employ strategies to attract and retain customers. Therefore its closure would not be a direct result of the proposed development but the inability to compete successfully. The owners of the service station have been approached by the developer to enter into a partnership on the proposed development. At the time of the drafting of this report, the owner of the Shell Service Station had declined all proposals made by the Developer.

The presence of the proposed development which will include a retail store, may lead to pulling away of customers from the CBD of KwaMbonambi. This would result in loss of business for some of the businesses which are located in KwaMbonambi. These losses are not expected to result in the shut down of these businesses. The major factor that will lead to existing businesses still being able to attract customers is that of prices. A lot of the people within KwaMbonambi have little to no income and as such, they are more likely to purchase more from stores that allow their income to stretch further which will give existing businesses such as the USave and opportunity to still make enough profit to continue operating sustainably. In addition, the proposed development is located about only 1.3km from the CBD of KwaMbonambi and therefore, customers can be able to walk between the two areas.

The proposed development will have some negative impacts on the environment within and around the site. This will include impact on indigenous vegetation which will be cleared during the construction phase. However, there is only one (1) plant species of conservation concern which is listed as of Least Concern (LC) with no fauna or avifauna of conservation concern. Any vegetation of conservation concern located within the project footprint will be relocated prior to the commencement of the construction of the proposed development. The site ecological sensitivity within the project site is low and medium with no high site sensitivity index within the site. There were no watercourses observed within the site and also

no heritage/archaeological resources. Therefore with implementation of impact mitigation measures, the environmental impacts of the proposed development can be reduced to low-minor.

ii. Impacts identified for the preferred site

Different aspects/activities that will be conducted as part of the proposed development will lead to the impacts that are likely to occur as a result of the proposed development throughout the project life cycle. These include but are not limited to:

- Removal of vegetation
- Stripping of topsoil and sub-soil for the construction of the different facilities.
- Movement of plant and vehicles onto, off and around the site.
- Storage and handling of hazardous substances during construction phase.
- Use of Plant/Machinery and Working at Height.
- Waste Management.
- Conduction of construction activities.
- Socio-Economic related aspects.
- Decommissioning of the construction site camp and laydown area.
- Use and storage of potentially hazardous substances.
- Operation and maintenance of a wastewater system.
- Operation of entertainment area.

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.

viii. 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 7: 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	• Unlawful activities that could result in detrimental 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.	• An Environmental Control Officer must be appointed at least 2 months prior to the intended date of the commencement of the proposed development. • Once appointed, the ECO must familiarize themselves with the EA, EMPr and any other accompanying documents and advise the Developer, Contractor and other members of the project team accordingly.

	• Loss of species of conservation concern. • Failure to implement impact mitigation measures	• No form of on-site activity including site clearance may take place prior to notifying EDTEA of the commencement of the development. • A site walk through must be conducted with a suitably qualified expert in order to conduct and onsite search and rescue for Species of Conservation Concern. • Implementation of mitigation measures must be considered prior to the commencement of the construction in order to ensure that sufficient resources are timeously allocated and acquired for the implementation of mitigation measures.
Removal of Vegetation	• Loss of vegetation communities. The existing plant communities on the site have little ecological significance. • Loss of plant species of conservation concern. One species of conservation concern was identified within the site with about 50 individuals of this species to be affected during site clearance. • Invasion of Alien Invasive Plant Species. Areas exposed due to vegetation clearance will become susceptible to invasion by alien invasive plant species especially as there are many invasive plant species within the site. • Reduction in species diversity. • Habitat destruction and displacement of species.	• The careful application of mitigation techniques and the meaningful application of rehabilitation, landscaping and alien invasive plant species clearing will ensure that the losses are significantly reduced and that the proposed development will not result in a “net-loss in biodiversity”. • The identified protected plant species is of Least Concern and of no real conservation significance. Therefore, the layout does not need to be amended but a search and rescue must be conducted prior to site clearance taking place with identified individuals to be transplanted to areas outside of the construction footprint. • An alien invasive plant control program must be compiled and complied with for the construction phase for periodic clearance/eradication of alien invasive plant species. • Plant removal must only take place within designated site area. Areas beyond the site must be treated as no-go areas. Any indigenous plant species within the project footprint must be preserved or transplanted. • The area of dense vegetation adjacent to the site must be preserved as it will likely provide habitat for bird species some of which may ne species of conservation concern.
Stripping of topsoil and sub-soil for the construction of the different structures	• Decreased topsoil quality resulting in lowered plant growth rate. • Increased soil erosion.	• Topsoil monitoring (depth and soil testing) must take place prior to soil stripping and backfilling. The Engineer and ECO must determine if the quality of soil is satisfactory, prior to backfilling.

	• Sedimentation of stormwater and stormwater channels.	• Topsoil must be sequentially removed in accordance with the requirements on site.
		• All topsoil must be adequately stored:
		  o On a Flat surface;
		  o Below two metres;
		  o Suitably covered if stored for prolonged periods of time.
		  o Separate from sub-soil and other stockpiles.
		• All temporary embankments that are considered sensitive to erosion must be adequately retained and supported (sandbags, fascine work, retaining blocks etc.).
		• Where applicable/necessary measures to prevent silt from being washed offsite onto surrounding environment, must be implemented.

Construction Phase		
Activity	**Resulting Impact**	**Proposed Mitigation**
Use and storing of potentially hazardous substances	• 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.	• 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.

Movement of plant and vehicles onto, off and around the site.	• Reduced photosynthesis of nearby vegetation due to dust settling on leaves;
	• Trampling of vegetation outside of the development footprint due to vehicle movements;
		• Traffic signs much be erected throughout the site, demarcating the following:
		  o Speed limits;
		  o Sensitive areas; and
		  o No-go areas
		• Dust suppression must be implemented on all access roads. This practice must be

	• Compaction of fertile soils leading to reduced plant growth and soil quality; • Animal fatalities due to traffic related incidents and • Build up of traffic due to influx of vehicles moving to and from the site especially with regards to movement of heavy vehicles which move slower and take up more space on the road thereby having a more significant impact on traffic. • Threat to human life due to accident.	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. • All vehicles observed to have leaks must be serviced immediately. Where some time lapses between detection of the spill and servicing of the vehicle/machinery, such vehicle must be parked on hardened surface or have a drip tray placed under the vehicle. • Animal fatalities due to construction works must be recorded and reported accordingly. Where animal species are observed within the site, such animals must as far as possible be removed from the site. • Movement of construction vehicles around the site must be controlled with temporary traffic signage to be displayed accordingly. Delivery of materials through heavy vehicles must preferably be scheduled to take place outside peak traffic periods to reduce the impact of traffic build up.
Use of Plant/Machinery and Working at Height	• Safety risks associated with use of plant or machinery which would include: o Injury to workers o Injury to locals • Injury risks where workers could fall from high levels	• 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.
Waste Management	• Failure to store and dispose of waste accordingly will result in pollution of the surrounding environment. • Burning or burning of waste on site would result in air emissions and groundwater contamination.	• Wind and scavenger proof containers must be provided and used for on-site waste storage. • Waste must not be left to accumulate onsite and should be regularly disposed of at the nearest waste disposal site.

	• Littering of waste around the site would have visual impacts on the area and negatively affect the appearance of the affected area. • Dumping of waste within and around the site would also affect any animals that may occur within or close to the site. • Failure to dispose of waste regularly may lead to odour and flies on and around the site.	• The waste disposal method for both general and hazardous waste must be confirmed with the appointed ECO. • 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. • Burning and burying of waste is strictly forbidden.
Conduction of Construction Activities	• There will be noise from construction vehicles, workers and construction works. • Dust result from earthworks on the site and the movement of vehicles within and around the site.	• Construction works must be limited to working hours between 07:00am and 04:30pm during weekdays and preferably no works during the operation phase. • 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	• Employment opportunities will be created for locals during the construction and operational phase of the proposed development. • As the areas has high poverty and unemployment, community groups may protest against the works being conducted with demands for employment and appointment of contractors/suppliers. • Having the proposed development located in this area may also stimulate other developments that would have a positive socio-economic impact within the affected areas.	• Terms of employment must be clearly explained to all workers prior to finalization of their employment. • 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. • At any stage appropriate, the developer may contribute to a community project such as development of a refurbishment of a school. • A community liaison officer must be appointed prior to the commencement of construction works to be the communication bridge between the Contractor and community. • The proposed development and project team must be presented to the ward councilor and relevant community groups prior to the commencement of construction works. • Local suppliers must be allowed to quote for required material and services and must

		preferably be given preference where their services or material meet the requirements for use in construction of proposed structures.
Post-construction		
Decommissioning of the construction site camp and laydown area.	• 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; • Proliferation of IAPS on site and into surrounding plant communities; • Introduction of exotic species through uninformed re-vegetation efforts; • Exposed, unsupported soil being eroded and causing erosion gullies; • Poor stormwater runoff, leading to erosion on site.	• 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 the site. • 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 backfilling. • No stockpiles must be left behind after the construction phase, but rather must backfill and/or removed from site. • Approved stormwater management plan must be implemented and maintained.
Operational Phase		
Activity	**Resulting Impact**	**Proposed Mitigation**
Operation of septic tanks	• Contamination of ground water from septic tank system. • Failing septic system would cause sludge to build-up, reducing the capacity of the tank and preventing the proper treatment of wastewater before it enters the drain field. Large volumes of disease-causing bacteria and viruses accumulate in the ground. When rain pours, they all end up in surface and groundwater facilities that lead to water pollution and problems to the health of the general public.	• Applicable standards and guidelines such as SABS 0400-1990 and SANS10400 must be complied with in the construction and operation of the septic tank system. • Time and effort must be invested in the proper maintenance of the septic system. • Inspection and pumping should be done regularly and natural treatments must be applied when necessary.

Operation of Fuel Station and associated facilities	• Possible contamination of groundwater through leaks in fuel storage tanks. • Loss of business for the existing Shell Service Station. • Potential traffic build up with additional vehicles using the access roads around the site to access the service station and other facilities. • Increased erosion around the site due to paved surface. • Odour and pests due to poor waste management. • Chemicals from pool water can lead to death of plants around the site where pool water is discharged into surrounding area during pool cleaning.	• SANS 10089-3 must be adhered to with regards to installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework. • The existing service station has been approached and made offers to be part of the proposed development. With no agreement reached, no further action can be taken by the Developer. • Traffic control measures in line with KZN DoT and Municipal requirements must be implemented. • Waste must not be allowed to build up on site. Waste must either be removed through the Municipal or through a private Contractor. An agreement can be entered into with informal recyclers in the area where waste materials on the development are collected into different receptacles according to waste types for collection by the recyclers. This would reduce the amount of waste that the Development needs to dispose of and would contribute to the project as a whole being more environmentally sustainable. • An appropriate drainage system must be put in place for draining water from the pool during pool servicing. Under no circumstances should water from the pool be discharged into the surrounding environment.
Fragmentation and ecological disturbance impacts	• The site area is already associated with moderate to high levels of fragmentation, which have led to limitations in ecological connectivity. • Noise and light pollution associated with the operational site could affect local wildlife and especially nocturnal species, such as amphibians, however this would only be significant during certain times of the year (i.e. the typical frog breeding season, for example). • Given that there are already existing facilities (operational buildings) in the vicinity of the property and a busy roads, existing noise and light impacts	• Controlling both the direct and indirect impacts of the proposed development will be key in ensuring the sustainability of this development. • 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.

	are already present and will therefore reduce the intensity of any further impacts which will be cumulative.	

ix. 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 site for the proposed development is located some distance from the Isimangaliso Wetland Park. Although no bird species of conservation concern were observed on the site, it is still possible that some species may migrate from the park to the site. Therefore, the trees within and around the site must be retained as much as possible.
- There is one plant species of conservation concern which was observed on the site. *Aristea torulosa* is listed as of Least Concern and is protected by the KZN Conservation Ordinance (KZNCO). A search, rescue and transplanting must therefore be conducted with a suitably qualified expert for individuals of this species and any other indigenous plant species. No vegetation may be removed without prior approval from the appointed ECO.
- Unnecessary vegetation removal must be avoided through:
    - Clearly marking and fencing the site boundaries prior to the commencement of construction activities.
    - Areas beyond the site and construction area must be regarded as no-go zones especially where there is dense vegetation.
    - 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 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.
- All waste produced during the construction phase including rubble and general waste must be collected and disposed of at the nearest approved waste dumping site. Waste management must also be implemented during the operational phase with recycling to be encouraged.
- All hazardous substances must be stored on an impermeable surface during both construction and operational phase. Concrete mixing must take place on mixing boards or on liner. Should any large amount of fuel be kept on site, the fuel must be kept on a properly established bunded area with the capacity to store/hold the contents of the container(s) placed on it.
- Applicable standards and guidelines must be adhered to for construction, operation and maintenance of the fuel storage tanks and associated structures as well as the septic tank system. Any failures or faults identified must be attended to as a matter of urgency.

- 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 phase.

These are only some of the mitigation measures. Detailed mitigation measures are contained in the EMPr which once approved will form an integral part of the EA and will be a binding legal document which must be complied with during all phases of the proposed development.

Table 8: Impact Assessment for Potential Impacts

Impact and Risk		Duration	Extent	Probability	Magnitude	Significance	Mitigation
Pre-Construction Phase							
Removal of Vegetation	Without Mitigation	2 Short Term	2 Local Scale	4 Highly Probable	4 Low	32 Medium	• A search and rescue must be conducted prior to site clearance taking place with identified individuals to be transplanted to areas outside of the construction footprint. • An alien invasive plant control program must be compiled and complied with for the construction phase for periodic clearance/eradication of alien invasive plant species. • Plant removal must only take place within designated site area. Areas beyond the site must be treated as no-go areas. Any indigenous plant species within the project footprint must be preserved or transplanted. The area of dense vegetation adjacent to the site must be preserved as it will likely provide habitat for bird species some of which may ne species of conservation concern.
	With Mitigation	1 Very Short Term	2 Local Scale	3 Probable	2 Minor	15 Low	
Stripping of topsoil, sub-soil	Without Mitigation	3 Medium Term	2 Local Scale	5 Highly Probable	6 Moderate	55 High	• Topsoil monitoring (depth and soil testing) must take place prior to soil stripping and backfilling. The Engineer and 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: ○ On a Flat surface; ○ Below two metres; ○ Suitably covered if stored for prolonged periods of time. ○ Separate from sub-soil and other stockpiles. • All temporary embankments that are considered sensitive to erosion must be adequately retained and supported (sandbags, fascine work, retaining blocks etc.).
	With Mitigation	1 Very Short Term	1 Minor Scale	2 Improbable	4 Low	12 Medium	

							• Where applicable/necessary measures to prevent silt from being washed offsite onto surrounding environment, must be implemented.
Construction Phase							
Impact and Risk		**Duration**	**Extent**	**Probability**	**Magnitude**	**Significance**	**Mitigation**
Use and storing of potentially hazardous substances.	Without Mitigation	2 Short Term	2 Local Scale	4 Highly Probable	6 Medium	40 Medium	• 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.
	With Mitigation	1 Very Short Term	1 Minor Scale	2 Improbable	0 Negligible	4 Negligible	
Movement of plant and vehicles onto, off and around the site.	Without Mitigation	2 Short Term	2 Local Scale	3 Probable	6 Medium	30 Medium	• Traffic signs much be erected throughout the site, demarcating the following: o Speed limits; o Sensitive areas; and o 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 receive rehabilitation prior to the closure of the site (deep-rip, backfilling of topsoil). • Vehicles may only traverse designated areas and access roads.
	With Mitigation	1 Very Short Term	1 Site Specific	1 Very Improbable	2 Minor	4 Negligible	

Use of Plant/Machinery and Working at Height	Without Mitigation	2 Short Term	2 Local Scale	4 Highly Probable	8 High	48 Medium	• 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	2 Improbable	4 Low	12 Low	
Impact and Risk		**Duration**	**Extent**	**Likelihood**	**Magnitude**	**Significance**	**Mitigation**
Waste Management	Without Mitigation	2 Short Term	2 Local Scale	4 Highly Probable	6 Medium	40 Medium	• Wind and scavenger proof containers must be provided and used for on-site waste storage. • Waste must not be left to accumulate onsite and should be regularly disposed of at the nearest waste disposal site. • The waste disposal method for both general and hazardous waste must be confirmed with the appointed ECO. • 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. • Burning and burying of waste is strictly forbidden.
	With Mitigation	1 Very Short Term	1 Site Specific	2 Improbable	2 Minor	8 Low	
Conduction of Construction Activities	Without Mitigation	2 Short Term	2 Local Scale	4 Highly Probable	2 Minor	24 Medium	• Construction works must be limited to working hours between 07:00am and 04:30pm during weekdays and preferably no works during the operation phase. • 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	• 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. • At any stage appropriate, the developer may contribute to a community project such as refurbishment of a school.
	With Mitigation	2 Short Term	2 Local Scale	5 Definite	8 High	60 High	
Post Construction Phase							
Impact and Risk		**Duration**	**Extent**	**Likelihood**	**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 Medium	• 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**	**Likelihood**	**Magnitude**	**Significance**	**Mitigation**
Operation of septic tanks	Without Mitigation	5 Permanent	2 Local	4 Highly Probable	8 High	60 High	• Applicable standards and guidelines such as SABS 0400-1990 and SANS10400 must be complied with in the construction and operation of the septic tank system. • Time and effort must be invested in the proper maintenance of the septic system. • Inspection and pumping should be done regularly and natural treatments must be applied when necessary.
	With Mitigation	1 Very Short Term	1 Site Specific	2 Improbable	4 Low	12 Low	
Operation of fuel station and associated facilities	Without Mitigation	5 Permanent	2 Local Scale	4 Highly Probable	8 High	60 High	• SANS 10089-3 must be adhered to with regards to installation, modification, and decommissioning of underground storage tanks, pumps/dispensers and pipework. • The existing service station has been approached and made offers to be part of the proposed development. With no agreement reached, no further action can be taken by the Developer. • Traffic control measures in line with KZN DoT and Municipal requirements must be implemented. • Waste must not be allowed to build up on site. Waste must either be removed through the Municipal or through a private Contractor. An agreement can be entered into with informal recyclers in the area where waste materials on the development are collected into different receptacles according to waste types for collection by the recyclers. This would reduce the amount of waste that the Development needs to dispose of and would contribute to the project as a whole being more environmentally sustainable. • An appropriate drainage system must be put in place for draining water from the pool during pool servicing. Under no circumstances should water from the pool be discharged into the surrounding environment.
	With Mitigation	2 Short Term	1 Site Specific	2 Improbable	4 Low	14 Low	

Fragmentation and ecological disturbance impacts	Without Mitigation	2	3	3	4	27 Medium	• Controlling both the direct and indirect impacts of the proposed development will be key in ensuring the sustainability of this development. • 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	

iii. Impact Significance

Considering the table 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.

Average Impact Significance Without Mitigation	40.42 Medium
Average Impact Significance with Mitigation	13.69 Low

All impacts identified can be mitigated against with no irreversible damage to be caused to the environment or community. There is also no anticipated loss of any irreplaceable resource. The site for the proposed development consists mainly of degraded habitat as it has been affected by anthropogenic activities. There were no wetlands or any other watercourses noted within or around the site which would be affected by the proposed development. There is a single plant species of conservation concern (*Aristea torulosa*) within the site which has a conservation status of Least Concern and can therefore be transplanted out of the project footprint. The site ecological importance rating is mainly low due to degraded habitat with patches of areas of medium ecological importance with no area of high ecological importance. Therefore, the socio-economic benefits of the proposed development outweigh the potential environmental impacts provided that recommended mitigation measures are adhered to.

I. WHERE APPLICABLE, A SUMMARY OF THE FINDINGS AND IMPACT MANAGEMENT MEASURES IDENTIFIED IN ANY SPECIALSITS 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 pre-application screening tool and summary of findings for those undertaken are included.

Agricultural Impact Assessment

Although the site for the proposed development appears to have been previously used for plantation with other active plantations around the site, the proposed development is not expected to have any impact on land currently used for agriculture. In addition, although small portions of the site are being used for subsistence farming/planting, the site is zoned for commercial development with the proposed development falling within activities that are allowed for within the site. An agricultural impact assessment has therefore not been conducted.

Archaeological and Cultural Heritage Impact Assessment and Paleontology Impact Assessment

All onsite assessments conducted thus far have not indicated any heritage/cultural features within the site. However, a church (Shembe) place of gathering is located on a property adjacent to the site for the proposed development. The land on which the church gathers is under the ownership of uMfolozi Local Municipality. The Municipality has indicated that the leaders of the church have been informed that the Municipality may at any point decide to use this land in which case the church would then need to be relocated to another property. A letter confirming this has been provided by the Municipality. Although the site is not directly on the property where the church is located, the property where the church is located is directly adjacent to the property of the proposed development. The nature of the proposed development is in such that there will be noise from the site which may lead to the church relocating as in its nature this church usually gathers in secluded quiet areas.

A heritage impact assessment has not been conducted thus far, but the draft Basic Assessment Report was submitted to the KwaZulu – Natal Amafa and Research Institute as the competent authority for Archaeological and Cultural features. Should they recommend that a heritage impact assessment must be conducted for the site, their recommendation will be followed.

Terrestrial Biodiversity Impact Assessment – (Appendix D1)

The proposed development was found to occur within only one (1) national vegetation type which is the Maputaland Coastal Belt. According to the National Biodiversity Assessment (Skowno, 2018), this vegetation type is considered to be vulnerable and in need of protection. However, no primary vegetation was found during the field assessment and therefore clearance of vegetation associated with the proposed development is not likely to jeopardize the conservation goals that may be associated with this vegetation type.

Of the plant species observed within the site, there was one plant species of conservation concern which although categorized as of Least Concern, is protected under the KZN Conservation Ordinance. This is the *Aristea torulosa.* This plant species may be transplanted from the site through a search and rescue which must be conducted prior to the commencement of construction activities.

No faunal species of conservation concern were observed during the field assessment conducted including mammals, amphibians, herpetofauna and avifauna.

Site ecological importance of the study area is predominantly low due to the site habitat mainly being Degraded. Other habitat within the site are the Secondary Grassland and Secondary Thicket having a medium ecological importance.

Based on the Terrestrial Biodiversity Assessment, the proposed development is likely to have impacts of a medium significance on the environment prior to implementation of mitigation measures and low significance with implementation of mitigation measures. The most severe impact identified is that of the potential for alien vegetation to proliferate and affect surrounding plant communities. However, as the application of mitigation techniques sufficient address the negative impact anticipated for this development, there will be a "no net-loss in biodiversity". The mitigation measures must be accompanied by application of a consolidated Alien Invasive Plant Species (AIPS) Plan, Rehabilitation Plan and Landscaping Plan throughout the project Life-cycle.

Recommendations

- Any animal fatalities (intentional or accidental) must be reported to the ECO and an incident report compiled.
- Stormwater control measures must be put in place by the Contractor to prevent sediment from smothering nearby vegetation outside of the development footprint.
- 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 and faunal species located nearby.
- A consolidated Alien Plant Species Plan, Rehabilitation Plan and Landscaping Plan should be compiled to assist both the Contractor and Applicant in ensuring that no residual impacts take place, and that the positive impacts of the development are enhanced throughout the project Life-cycle.
- All natural habitat found outside the development footprint must remain untouched, and listed as a no-go area, unless for management and maintenance purposes (e.g. IAPS control).

- No construction activities should take place during the evening.
- The Applicant should carefully manage herbicide usage for Alien Plant Species control. The Contractor appointed for this process must take into consideration wind direction and speeds to avoid impact areas outside of the development footprint..

Aquatic Biodiversity and Hydrology Impact Assessment

There were no watercourses identified on ground within the site or surrounding 500m radius of the site. The vegetation assessment of the site did not indicate any vegetation typically associated with wetlands. Therefore, no aquatic or hydrological study has been conducted thus far. DWS has been included in the list of state departments provided with the opportunity to comment on the proposed development. Should they recommend any of these studies to be undertaken, the EAP will liaise with their office in this regard.

Feasibility / Socio-Economic Impact Assessment – (Appendix D2)

The site has been seen as suitable for the proposed development in terms of traffic volumes (potential market) around the site, accessibility, visibility, suitability and aesthetic appeal of the site. The site is clearly visible and accessible from both directions on theP232 and therefore easily accessible from both KwaMbonambi Town and the N2 directions. The site is also clearly visible along the N2 and can be clearly spotted by motorists travelling north or south on the N2 which is essential for attracting the transient market.

In the study, the market area was divided into being the surrounding local community of KwaMbonambi and the transient market Travelling along the N2. Information from the census conducted in South Africa in 2016 and General Household Survey conducted in 2018 were used to determine the population and vehicle ownership in the Mfolozi Municipality.
The local market demand for fuel was calculated to be 139 846 litres/month while the transient market demand was calculated to be 749 055 litres/month. The total demand for the proposed site is therefore 888 901 Litres/month.

Local supply refers to filling stations present within the trade area that will compete with the proposed petrol station and its auxiliary functions whereas the regional supply refers to competing facilities situated on main roads from which the proposed facility is likely to attract consumers. In this case the distance used to identify the local supply was 20km with one service station identified which is the Shell 'KwaMbonambi Engineering' service station. According to the assessment conducted, the development and operation of the proposed filling station will have a small initial impact on this filling station, but considering the shared traffic and different markets catered for by each one of these competitor stations, this impact should not irreparably jeopardise their businesses as they have different markets and offer different amenities.

The regional supply was identified for service stations located within 100m distance from the site on either direction along the N2 with which the proposed service station will compete for transient Market. Two service stations were identified within the regional supply area which are Engen 1 Stop North Cost which is about 35km from the site and the Total Petroport Hluhluwe which is about 60km from the site. Due to a high demand for fuel, the proposed filling station is not expected to have any detrimental effects on competing facilities in the study area.

The assessment conducted along with information from the traffic assessment, it is clear that there is a need for a Truck Stop in the KwaMbonambi area.
It was concluded that the household income levels in the town of KwaMbonambi are too low to sustain a shopping centre and taking into account already existing informal retail market supply in the town, the Retail Centre develop will only succeed if it is a very small and well-focused convenience centre that also draw customers passing through the highway. The Developer is therefore considering making the store a cash and carry so as to attract business owners who can buy items in bulk for selling at their stores/shops.

Noise Impact Assessment
The proposed development can be expected to have some noise impacts during both the construction and operation phase. However, the noise levels during both levels is not expected to exceed 75dbl. The proposed development is therefore not expected to have a significant impact on ambient noise levels within the project area and therefore no noise impact assessment has been conducted.

Traffic Impact Assessment (Appendix D3)
A traffic impact assessment was conducted for the proposed development with the report dated August 2022 and the following findings were made:

- There are 4 roads identified directly around the site:
    - N2- SANRAL,
    - P232- KZN DoT,
    - Acacia Road- uMfolozi Local Municipality
    - Salinga Crescent- uMfolozi Local Municipality
- Although some pedestrians were observed around the site, there are no public transport facilities in the immediate vicinity of the proposed development.

- The planning year horizon analysed the local traffic volumes in the year 2027 (5-year planning horizon). The background traffic was grown accumulatively at a growth rate of 2.5% for 5 years and analysed. The results indicated that none of the intersections that were analysed in this TIA will require any upgrades to accommodate the increase in traffic volumes.
- The proposed development will generate a total of 287 veh/h equivalent car unit (ecu) two-way trips in the AM peak hour and 805 veh/h equivalent car unit (ecu) two-way trips in the PM peak hour.
- Of this total traffic, 250 veh/h equivalent car unit (ecu) two-way trips in the AM peak hour and 578 veh/h equivalent car unit (ecu) two-way trips in the PM peak hour are new trips and the remainder is pass-by and diverted trips.
- The planning year horizon background traffic was then added to the development generated traffic including the pass-by and diverted trips. The results indicated that none of the intersections that were analysed in this TIA will require any upgrades to accommodate the increase in traffic volumes.

Recommendations
- A site traffic assessment will be required prior to building plan stage to confirm all internal circulation, vehicle tracking, isle widths, throat lengths, access road lanes and widths and configuration. The Site Traffic Assessment is to include the access intersection with the Saligna Crescent and the intersection of Saligna Crescent and Acacia Road.

- It is envisaged that Saligna Crescent will have to be upgraded.

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

Geotechnical Assessment (Appendix D4)
According to the desktop assessment conducted as part of the Geotechnical assessment, site is underlain by sand and aeolianite of KwaMbonambi Formation. The upper subsoils of the site comprised of the Aeolian Horizon (Wind Deposit) and the Alluvial Horizon (River Deposit) soil profiles. According to the Geotechnical assessment, a perched water table is envisaged during and after periods of rainfall as groundwater seepage was intercepted in one of the test pits at a depth of 2.10m below natural ground level despite the month (April) in which the assessment was carried being one of the driest months in the area of KwaMbonambi. Surface water was noted in isolated areas of the development area further indicating a possibility of a perched water table.

According to the Unified Soil Classification System (USCS), the soil classifies as SC i.e. clayey sands, sand-clay mixtures. The material on site comprises >G10 quality material, therefore it is not suitable for the upper layer works. It is suggested that the material should only be used as subgrade material.

According to the pH levels of the soils on site it was recommend that precautions against corrosion, in the form of piping made of inert materials such as PVC and HDPE be used instead of metallic pipes were feasible, as is frequently common local practice.

Recommendations
Excavatability
According to SANS 1200D classification, the intercepted material on site classifies as SOFT. This implies that, material which can be efficient removed by a back-acting excavator of fly wheel power > 0.10kW for each mm of tined bucket width. It is therefore suggested that a TLB or a better plant should be used for excavation on site.

Inspection of Excavation
The Contractor must:
- Ensure that all excavations work is carried out under the supervision of a competent person.
- Evaluate the stability of the ground prior excavation work commences.

All excavations must be inspected on daily basis, (a) after unexpected collapse of the ground, (b) after a rainfall, and or (c) after damage to support. The inspection will need to be carried out by a competent person as recommended by OSH Act (1993).

Earthworks
It is recommended that earthworks on site be undertaken in accordance to SANS 1200. Where lateral supports are not constructed, cut slopes should be restricted to maximum batters of 1:1.9 (28˚) on aeolian sand and 1:1.6 (32˚) on alluvial clay, and to a maximum height of 1.50m. Any excavation that is greater than 1.50m should be battered back to safe slope angle or must be shored to ensure the safety of construction personnel.
Prior to construction of any fill, the natural ground should be cleared of all vegetation and should be compacted with a suitable compaction plant. The fill should be constructed in layers not exceeding 150mm loose thickness and be compacted to at least at least 93% Mod AASHTO maximum dry density prior to the placement of the next layer. The fill should be compacted to within 1 to 2% of optimum moisture content (OMC).

Page 18 – 25 of the Geotechnical assessment contain recommendations pertaining to foundations based on the characteristics of the soil profiles observed on the site. Based on the information collected at the time of the site investigation by the Geotechnical specialist, the proposed site is feasible for the development provided that the recommendations contained in the geotechnical report are adhered to.

Stormwater – A stormwater design is currently underway and will be included in final BAR.
Below are some of the stormwater related recommendations put forward through the geotechnical assessment conducted.

All stormwater from hardened areas (roof and paved areas) should be collected and discharged in a carefully controlled manner according to the engineer's specifications.
A detailed stormwater management plan should be produced for the site. Under no circumstances should water be allowed to discharge onto the ground near the foundations. It is further recommended that concrete aprons be constructed around the perimeter of the structures if there no rigid or flexible pavement.
In an event where stormwater cannot be discharged into a municipal system, a soakpit system should be considered. However, a percolation test should be undertaken to assess the permeability of the subsoil. The soakpit volume should be calculated as follows, $40m^2$ of hardened area of the site equals to $1m^3$ of the soakpit volume. It is important to locate stormwater soakpit on the downslope side of the site and at least 3m from the sides of any building, in order to ensure that there is no flow of subsurface water towards the foundations.
The material beneath the positions of the concrete aprons should be ripped (~150mm) and re-compacted to at least 93% Mod AASHTO.
Given the depth of formation of the residual shale soils and relatively low groundwater level, heave can be expected to occur beneath foundations which are underlain by these soils. Therefore, measures to mitigate cracking of the structures due to heave beneath foundations should be considered.

Plant Species Assessment
Covered within the terrestrial biodiversity assessment.

Animal Species Assessment
Covered within the terrestrial biodiversity assessment.

All identified impacts and impact mitigation measures from specialist report have been incorporated into the relevant sections as well as the EMPr.

All outcomes from the specialist assessments that have been conducted were incorporated into draft BAR and draft EMPr. Outcomes of the assessments were used to:-

- Enrich the description of the receiving environment, biophysical attributes of the site;
- Have influenced the layout and design presented with the BAR,
- Recommendations of the specialist's form part of draft BAR and EMPr including recommended mitigation measures and identified potential impacts and

J. AN ENVIRONEMNTAL STATEMENT WHICH CONTAINS-

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

In terms of the terrestrial biodiversity assessment conducted, the potential for alien vegetation to proliferate and affect surrounding plant communities has been regarded as the most severe impact, and should be viewed in a serious light by the ECO and Applicant.
However, in terms of the overall aspects of the proposed development including the operation phase, the most significant impacts can be associated with the presence and operation of machinery and working at heights during the construction phase as any incident related to these aspects would have the potential of resulting in injury, potential disability and loss of life of affected persons. While the storage and handling of high volumes of fuel during operation phase would have the most significant impacts with potential to cause soil and water contamination and potential for fire/explosion as fuel is a combustible substance. In addition, septic tank systems can create significant impacts if not managed accordingly and the proposed development will make use of a septic tank system.

However, although the above impacts are of notable significance, these impacts can be avoided or mitigated through implementation of impact mitigation measures. As such the significance of identified impacts can be reduced to an average score of low significance following implementation of mitigation measure.

On the positive end of the spectrum are the positive socio-economic benefits of the proposed development. KwaMbonambi as the only formal town and primary node of the uMfolozi Local Municipality should offer more services to surrounding communities than it currently does, the proposed development will help address this challenge and will create a significant number of employment opportunities especially as there will be permanent employment opportunities during the operation phase of the proposed development.

(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

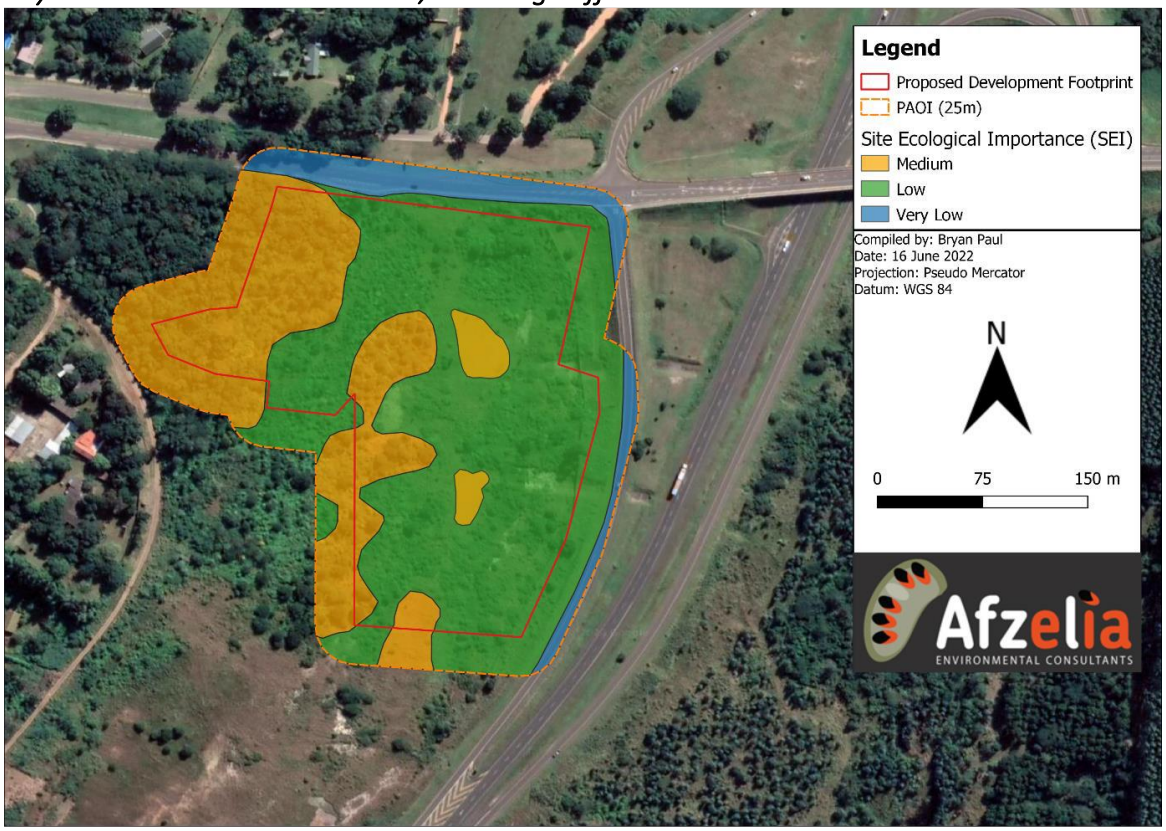

Figure 11: Site Ecological Importance Map (Source: Terrestrial Biodiversity impact assessment report compiled by Afzelia Environmental Consultants, June 2022).

The Site Ecological Importance ranges from Low to Medium with Low rating being predominant as site is dominated by degraded habitat. There was one plant species of conservation concern which is listed as of least concern. This plant species can be transplanted but a permit for such transplanting must be applied for with EKZ Wildlife. No faunal species of conservation concern were identified during the site assessment. Therefore, no amendments to the layout was recommended by the Biodiversity expert. However, should any of the state departments or I&APs recommend amendment to the layout, this will be considered and discussed with relevant parties including the applicant to reach common ground.

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 EMPr

The impact management measures in this section have focused on mitigation measures recommended biodiversity assessment report which encompassed faunal (mammal, reptile and avifauna) and floral assessment. In this part of the report we have specifically focused on the recommendations made which are aimed at management of impacts that may be associated with the proposed development.

- The construction and operational footprint of the development must not extend past the footprint demonstrated within the proposed development plan. All construction laydown areas should be placed within existing disturbed areas and not within any sensitive habitat located nearby.
- All access to the proposed development must be limited to existing access roads and pathways where possible. No adhoc roadways should be permitted, without first being authorised by the ECO and the CA.
- No plant species (SCC or common) should be harvested or removed from site without approval from the ECO or Applicant in writing.
- If any protected plant species are found within the construction footprint, permits (Ezemvelo KZN Wildlife) must be received before construction commences on site.
- If any protected species die during the translocation process, specimen loss must be offset at a ratio of 1:3.
- No killing of fauna must be tolerated.
- Environmental awareness training must be conducted by the ECO before any new staff commence with work on site. This must include the adequate identification of the following species:
    - *Circaetus fasciolatus*;
    - *Kinixys natalensis*;
    - *Doratogonus zuluensis* (when clearing secondary thicket habitat); and
    - Sensitive species 7
- Any recorded sightings of these species must immediately be reported to the ECO immediately (especially if breeding or nesting nearby). Any nesting activities recorded within the development footprint must result in the immediate cessation of construction activities until instructed to commence again by the ECO and when safe to do so again.
- Any recorded mortalities of the aforementioned species should be reported to the CA and construction should be halted pending an investigation.
- Any excavations or holes must be checked regularly for fauna that may have either occupied the area or may fallen in accidentally. The design of deep excavations should consider nearby fauna (especially reptiles).
- Construction should not take place during the evening and should be restricted between 07h00 and 16h30.
- Any lighting must not point outwards toward any natural habitat and should be focus downwards or towards the development.
- All areas outside of the development footprint must be regarded as no-go area.
- The proposed development footprint must be kept as small as possible and ensure that all non-operational areas are rehabilitate to a suitable condition.
- Rehabilitation must extend into the Project Area of Influence (PAOI) and not only the proposed development footprint.
- An Alien Invasive Plant Species Control Plan must be developed by the Contractor and include both construction and operational phase requirements.
- No dumping of cleared alien vegetation must be allowed on site. All cleared material must be appropriately disposed of at a registered landfill.
- Alien invasive plant control regimes must include the entire site and PAOI.

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

- As some species of conservation concern were identified within the site, a horticulturalist/vegetation specialist must be engaged prior to any vegetation removal to advise/guide translocation of such plant species. The necessary permits will also need to be obtained prior to any commencement of works on site.
- Any animal fatalities (intentional or accidental) must be reported to the ECO and an incident report compiled.
- Stormwater control measures must be put in place by the Contractor to prevent sediment from smothering nearby vegetation outside of the development footprint. This plan must be submitted to EDTEA and other relevant departments for approval.
- 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 and faunal species located nearby.
- A consolidated Alien Plant Species Plan, Rehabilitation Plan and Landscaping Plan should be compiled to assist both the Contractor and Applicant in ensuring that no residual impacts take place, and that the positive impacts of the development are enhanced throughout the project Life-cycle.
- All natural habitat found outside the development footprint must remain untouched, and listed as a no-go area, unless for management and maintenance purposes (e.g. IAPS control).
- No construction activities should take place during the evening.
- The Applicant should carefully manage herbicide usage for Alien Plant Species control. The Contractor appointed for this process must take into consideration wind direction and speeds to avoid impact areas outside of the development footprint.

M. A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINITES, 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 be of higher significance.

The specialist studies were conducted over a limited space of time and therefore there may be some changes in 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 developments socio-economic impacts outweigh negative potential environmental impacts is based on the assumption that mitigation measures in the EMPr and EA (if issued) will 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 location for the project is highly suitable for the proposed development allowing easy access for customers coming off the N2 as well as customers from communities around the area of KwaMbonambi. The site having no area of high ecological importance also makes the location favorable as other sites may have more sensitive environmental features such as wetlands. Although no other locations have been presented, the EAP strongly believes that, with KwaMbonambi being the targeted area to benefit from this development, the site meets all locational requirements for a development of this nature without compromising the ecological integrity or biodiversity goals for the affected area.

Opinion as to Whether the Proposed Activity Should Be Authorized

It is the opinion of the EAP that the proposed development should be authorized. Thus far, no heritage features have been identified on the site. In addition, although there was a plant species of conservation concern identified within the site during the terrestrial biodiversity impact assessment, the application of mitigation techniques including an Alien Invasive Plant Species (AIPS) Plan, Rehabilitation Plan and Landscaping Plan which will be implemented throughout the project lifecycle, will sufficiently address the negative impact anticipated for this development resulting in a "no net-loss in biodiversity".

The property on which the development has been proposed was historically used as a timber plantation, which without consistent intervention will continue to deteriorate over the coming years, posing a risk to intact habitat located nearby if the proposed development is not considered favorably.

In addition, the feasibility assessment, geotechnical study and traffic impact assessment have showed no fatal flaws in the proposed development. The proposed development was identified as being feasible through the mentioned studies on condition that the recommendations in the reports generated are followed/adhered to.

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 hence the opinion that the proposed development should be considered favorably.

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

The Applicant must make provision for rehabilitation in the form of tree replacement and landscaping on project completion. There is also a need for alien species eradication programme, 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, Plant Rescue & Protection plan and Indigenous 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: