Draft Basic Assessment Report for Medi-Prime Hospital, Mzinti, Nkomazi Local Municipality, Mpumalanga Province

16 November 2023

CORE Environmental Services
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EXECUTIVE SUMMARY

Injongo Investment (Pty) Ltd is proposing to construct a 100-bed hospital of approximately 5Ha in extent within the Mzinti Township, near Malalane, in Mpumalanga. This proposed 100-bed hospital will also consist of the following:

- Medical Suites;
- Temporary Mortuary;
- Coffee Shoppe;
- Parking Area;
- Covered refuse area and
- Water tanks

In accordance with the National Environmental Management Act 107 of 1998, GNR 983 of 2014 (as amended in 2017), an Environmental Authorisation (EA) is required before these construction activities can commence.

The proposed development site is located on portion 0 of the farm Matabula 701-JU, within Mzinti Township, approximately 30km south-east of Malalane town.
Coordinates:
25°40'55.71"S
31°44'7.56"E

In effort to engage potential stakeholders, different communication methods were used to inform them about the project and how to get involved in the EA process. These methods include:
Distributing English Background Information Documents (BIDs) to all registered I&APs, 27 October 2023, proof of which is attached in Annexure C.2;
Placement of media advert in a local newspaper (The Mpumalanga News) on 4 October 2023 (see Annexure C.3).
Placing of a notice at the proposed site took place on 23 September 2023 (see Annexure C.4);

The construction and operational activities are likely to result in the following environmental and socio-economic impacts. The identified impacts are listed below and discussed thereafter:

- *Impact on biodiversity;*
- *Generation of dust;*
- *Impact on soil (soil erosion and soil pollution);*
- *Impact on water resources;*
- *Traffic;*
- *Sanitation and waste generation;*
- *Socio-economic impact.*

From the environmental statement as indicated within the table below, it is evident that that impacts can be reduced to be of low to very low significance if mitigation measures are implemented and adhered to. Recommendations have however been made to address the impacts which could affect the biophysical and socio-economic environment. A summary of the impacts assessed ae provided below:

IMPACT	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES
Construction Phase Impacts		
Impact on biodiversity	Low	Very Low
Generation of dust	Low	Very Low
Soil Pollution	Low	Very Low
Soil Erosion	Low	Very Low
Excessive water use	Medium	Low
Sanitation and Waste generation and dispoal	Medium	Low
Temporary job opportunities	Medium (+)	Medium (+)
Health and safety during construction	Low	Very Low
Operational Phase Impacts		
Spreading of alien invasive species	Medium	Low
Soil Erosion and improper storm water management	Medium	Low
Excessive water use resulting to the depletion of ground water resources	High	Low
Waste generation and disposal	High	Low
Traffic Impact	Medium	Low
Permanent Job Opportunites	High (+)	High (+)
Improved livelihood of the surrounding community	High (+)	High (+)

It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation included as the conditions of the authorisation.

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1. OVERVIEW OF THE PROJECT

1.1 Introduction

Injongo Investment (Pty) Ltd is proposing to construct a 100-bed hospital of approximately 5Ha in extent within the Mzinti Township, near Malalane, in Mpumalanga. This proposed 100-bed hospital will also consist of the following:

- Medical Suites;
- Temporary Mortuary;
- Coffee Shoppe;
- Parking Area;
- Covered refuse area and
- Water tanks

In accordance with the National Environmental Management Act 107 of 1998, GNR 983 of 2014 (as amended in 2017), an Environmental Authorisation (EA) is required before these construction activities can commence.

Injongo Investment Company (Pty) Ltd subsequently appointed **Core Environmental Services** to apply for the EA by means of conducting a Basic Environmental Impact Assessment process as regulated within General Notice Regulation 982, 2014 (as amended in 2017).

1.2 Location

The proposed development site is located on portion 0 of the farm Matabula 701-JU, within Mzinti Township, approximately 30km south-east of Malalane town.

Coordinates:
25°40'55.71"S
31°44'7.56"E

Please refer to the locality map below, Figure 1.

FIGURE 1: LOCALITY MAP FOR THE PROPOSED MEDI-PRIME HOSPITAL, MZINTI, NKOMAZI LOCAL MUNICIPALITY, MPUMALANGA

1.3 Details of the EAP

Ms. Anne-Mari Hitge is an Environmental Specialist, who started her studies at the North-West University (NWU) and completed her Bachelor of Science: Environmental Management at the University of South Africa (UNISA) in 2007. Ms. Hitge is registered with the South African Council for Natural Scientific Professionals as a Certificated Natural Scientist (Reg. No 300067/15) as well as with the Environmental Assessment Practitioners Association South Africa (EAPASA – Reg. No. 2020/602). In addition to her qualification, she completed short courses in soil classification and wetland delineations (Terrasoil Science), Geographic Information Systems (University of KwaZulu-Natal), and Environmental Impact Assessments (NWU).

1.4 Policy Legal and Administrative Framework

1.4.1 National Environmental Management Act, 107, 1998

In accordance with the National Environmental Management Act 107, 1998, GNR983, 2014 (as amended in 2017), the following listed activities applies for the project and therefore requires Environmental Authorisation.

TABLE 1: LISTED ACTIVITIES APPLIED FOR IN TERMS OF NEMA 107, OF 1998

Listed Activity in terms of GNR983, GNR984, and GNR985 of 2014 (as amended)	**Description**
GNR 983, Activity 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 (ii) maintenance purposes undertaken in accordance with a maintenance management plan.*	The total area to be cleared equates to 5Ha.
GNR 983, Activity 28: *Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture on or before 1 April 1998, and where such development (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.*	The project area was previously used for agricultural purposes (game/cattle farming) and it is proposed that 5Ha will now be converted for the purposes of a hospital.

Other national, provincial or local legislation applicable to the proposed project, is indicated in Table 2, below.

TABLE 2: LEGISLATION APPLICABLE TO THE PROJECT

Applicable legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments considered	Project application and type (permit / licence / authorisation / comment)
The Constitution of South Africa, Act No. 108 of 1996	Injongo Investment Company (Pty) Ltd will be required to adhere to the Environmental Management Programme (EMPr) requirements to ensure that social and environmental management considerations are considered and implemented. As per Section 25 the Constitution, a public participation process (PPP) was and will continue to be undertaken, as this is considered to be an essential mechanism for informing stakeholders of their rights and obligations in terms of the project.
National Environmental Management Act, 1998 (Act No. 107 of 1998)	As listed activities are triggered by the proposed construction of the Medi-Prime Hospital, Environmental Authorisation is required in terms of NEMA 107, 1998 and must subsequently be applied for by means of undertaking a Basic Assessment process.
National Environmental Management: Waste Act 59 of 2008	The Act aims to reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development. As waste will be generated (domestic and medical waste), regulations with regards to the storage and disposal of such waste must comply with the National Environmental Management: Wast Act of 2008.
National Water Act, 1998 (Act No. 36 of 1998)	Water resources must subsequently be managed in accordance with the National Water Act 36 of 1998.
National Health Act, 2003 (Act No. 61 of 2003)	The National Health Act 61 of 2003 intends to provide a framework for a structured uniform health system within the Republic, taking into account the obligations imposed by the Constitution and other laws on the national, provincial and local governments with regard to health services. As the application is for the construction and operation of a hospital, the operations of the hospital must comply with the regulations stipulated within the National Health Act of 2003.
Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983)	The Act provides for the control over the utilisation of the natural agricultural resources of the Republic in order to promote the conservation of soil, water, and vegetation and the combatting of weeds and invader plant species. Injongo Investment Company must comply with the regulations included within the CARA 43 of 1983, to ensure the preservation of soil, water resources, and vegetation and prevent the spreading of invader plant species.

National Heritage Resources Act, 1999 (Act No 25 of 1999)	This legislation aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations. As the area to be transformed is larger than 5 000m^2, a Heritage Impact Assessment was undertaken. The findings of the report are detailed in Section 5.
Mpumalanga Spatial Development Framework (MSDF) Draft (2013)	The MSDF has a vision to provide: *"a sustainable urban and rural spatial development pattern focussed on a modern, ecologically sustainable economy, supported by a suitably skilled labour force and providing for quality of living* [emphasis added]*."* The underlined portions of the Vision address those aspects which are applicable to this project: ● The hospital will provide permanent job opportunities to employees. ● The implementation of the Environmental Management Programme (EMPr) associated with this application will ensure that the quality of the environment directly and indirectly affected by the operations of the commercial activities does not deteriorate or is limited as far as reasonably possible.
Nkomazi Local Municipality Integrated Development Plan (IDP)	Nkomazi Local Municipality Integrated Development Plan (IDP). The primary objectives of the IDP are to foster economic growth that creates jobs and improve infrastructure within the province. Job opportunities will be created by the proposed commercial activities which supports economic growth within the area.

1.5 Description of the project

This proposed 100-bed hospital will also consist of the following:

- Medical Suites;
- Doctors and Staff Residence;
- Temporary Mortuary;
- Coffee Shoppe;
- Parking Area;
- Covered refuse area and
- Water tanks

No bulk municipal water is available and therefore water will be provided from boreholes located within the project area and stored in JoJo Tanks. It will be ensured that the quality of water complies with the guidelines in terms of SANS 241-1:2015.

The water demand is indicated in Table 3 below:

TABLE 3: WATER DEMAND TABLE

Description	Value No.	Develop Area	Water Demand / Unit	Demand (KL/Day)
Hospital	Beds	100	0.06	6
Medical Suites	Area	2260	0.4/100	9.04
Docters & Staff residence	Area	2584	0.7/100	18.088
Add 5% Water Losses				1.8064
TOTAL				**34.93**

The types of waste to be generated by the hospital includes the following:

- Domestic waste
- Sewage/Effluent
- Medical Waste

The project area is not serviced by the Nkomazi Local Municipality and therefore domestic waste will have to be stored temporarily and transported off-site to the nearest registered landfill site.

No bulk sewer is available for the proposed development and for this reason a new 30KL/day wastewater treatment plant is proposed to be constructed. The sewerage purification plant (package plant) must be placed as such that all of the buildings will be able to drain towards this plant (taking cognisance of minimum slope gradients). The estimated sewerage generated by the proposed development is indicated in Table 4 below:

TABLE 4: SEWAGE DISCHARGE CALCULATION

Description	Value No.	Sewer Demand / Unit	Demand (KL/Day)
Hospital	Beds	80% of water	4.8
Medical Suites	Area	80% of water	7.232
Docters & Staff residence	Area	75% of water	13.566
Sub Total			27.998
Add Water Infiltration			1.3999
TOTAL			**29.40**

This type of system consists of the following three major components:

- Pre-digestion in the form of the septic tanks;
- Bio – Reactor;
- Pathogen Treatment.

1.6 Need and Desirability

Mzinti is an informal township area which expanded quite extensively over the past 10 years. With the expansion of the area, population have also increased significantly within the immediate area, establishing a need to the area to fulfill the basic needs for the community members.

At present, there is no hospital within the Mzinti Community and the nearest hospital is located in Tonga, namely the Tonga Public Hospital, which is at least 10km east of the proposed Medi-Prime Hospital.

The applicant, Injongo Investment believes that every South African especially those in the rural areas should have access to affordable quality health care services and proper shelter within those communities without any form of prejudice. Injongo Investment facilitates the transfer of patients from public to private hospitals, and also helps with the management of these patients, under the umbrella of the Road Accident Fund. The Medi-Prime Hospital, would therefore be an upgrade from the public hospital provided in Tonga, providing affordable quality healthcare to the surrounding community which is mostly rural.

2. DESCRIPTION OF THE ENVIRONMENT

The project site has already been transformed. Some of the aspects are described below in order to provide a description of the affected and surrounding environment. The description of the affected environment below draws on existing knowledge from published data, previous studies, as well as a site visits to the area.

2.1 Topography

The topography of the proposed site is relatively flat, with the site sloping very slightly towards the north-eastern corner of the proposed property. There are no valleys or ridges within or adjacent to the proposed site area.

The altitude of the site is noted as 270m above sea level.

2.2 Climate

Mpumalanga is a province where the climate varies due to is topography. The proposed project area is located on the Lowveld Region and has a tropical climate with warm sub-tropical temperatures and experiences high summer rainfalls. The study area experiences a humid and hot weather during summer seasons. The climatic trends of the area suggest summer season precipitation and dryer periods during winter. The area receives a total of about 800-1000 mm of rain over 12 months.

2.3 Land Use

The project area as well as surrounding areas has already been transformed and has been informally urbanized. The areas directly adjacent to the proposed project site are also in process of being transformed to residential. Directly north of the project site is an operational borrow pit as well as an ESKOM Transmission Line. It is unknown whether the borrow pit is being operated legally in terms of the Environmental Management Act 107, of 1998, and/or the Mineral and Petroleum Resources Development Act 28 of 2008. The access to the proposed project area is scattered with litter and being used as a dumping site.

2.4 Surface and Groundwater

From desktop and site assessment undertaken, it is evident that there is no surface or ground water bodies within the extent of the proposed site. As depicted in Figure 2 below, there are no National Freshwater Ecosystem Priority Areas (NFEPA) on or near the proposed project site.

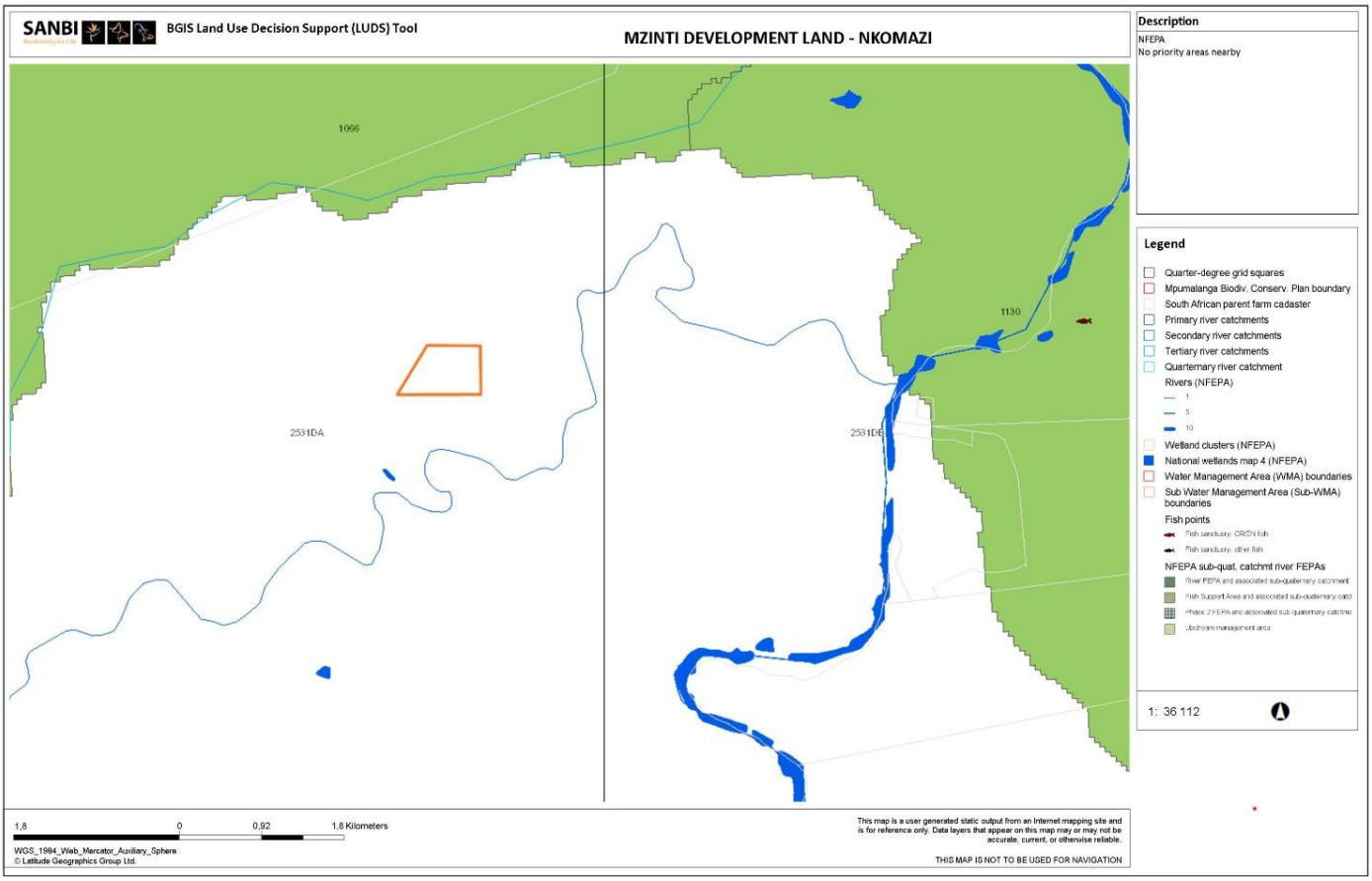

FIGURE 2: NATIONAL FRESHWATER ECOSYSTEM PRIORITY AREAS NEAR PROPOSED MEDI-PRIME HOSPITAL

In terms of the Mpumalanga Biodiversity Sector Plan of 2014, the aquatic priority of the proposed site is noted as “Other Natural Areas”. This classification is relevant to the entire extent of the property and are not required to meet biodiversity targets, and so are not identified as a priority in the MBSP. They do, however, retain much of their natural character. The biodiversity in these non-priority landscapes may still be of value and contribute to maintenance of viable species populations and natural ecosystem functioning and Other Natural Areas may provide essential ecological infrastructure and ecosystem services. ONAs offer the greatest flexibility in terms of management objectives and permissible land-uses and are generally recommended (along with Modified Areas) as the sites for higher-impact land uses. Primary objectives: An overall management objective should be to minimize habitat and species loss and ensure ecosystem functionality through strategic landscape planning. This classification is relevant to aquatic ecological importance of the northern section of the property.

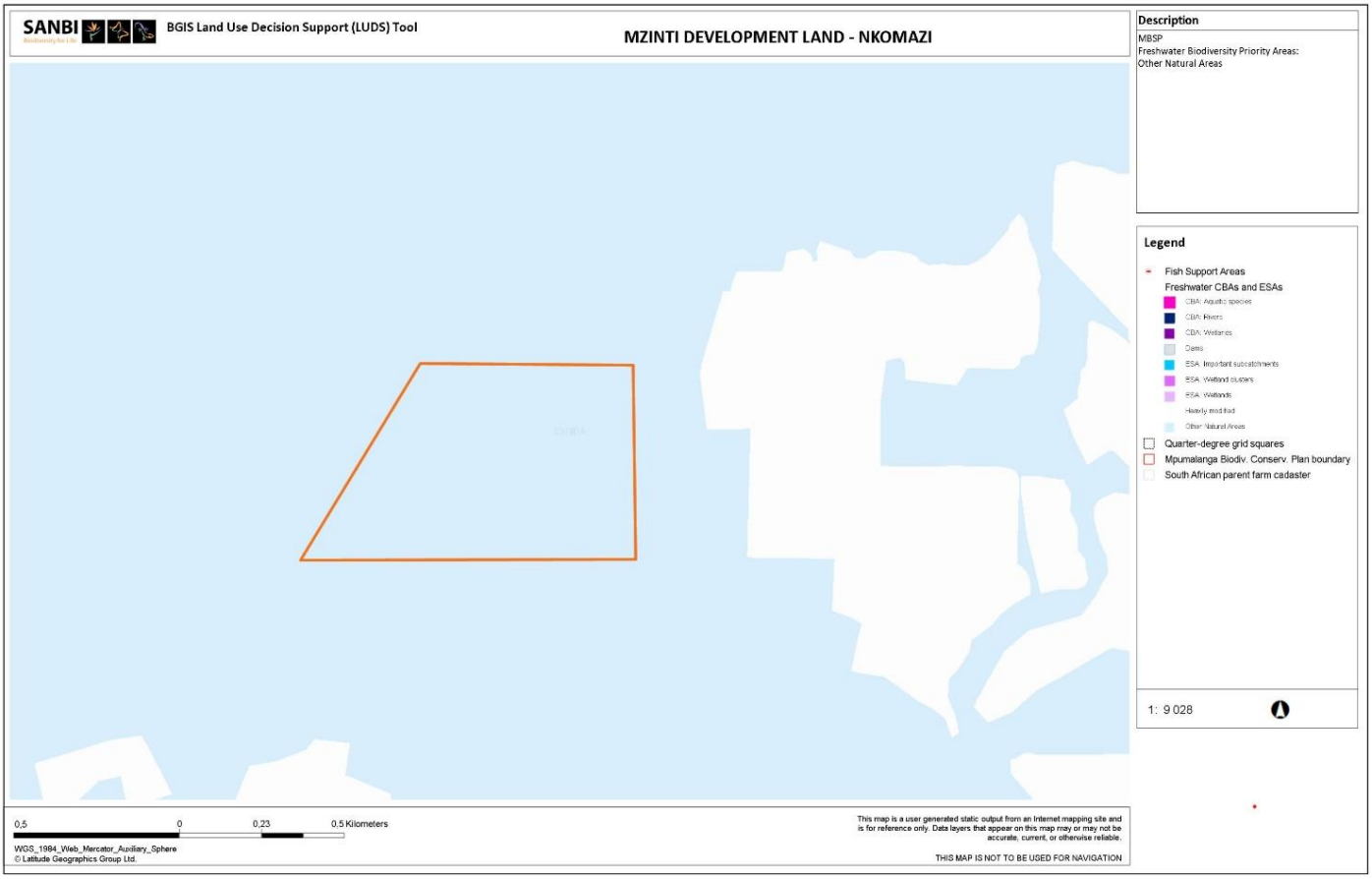

FIGURE 3: AQUATIC BIODIVERSITY SENSITIVITY OF THE PROPOSED PROJECT SITE

2.5 Terrestrial Environment

Terrestrial Ecology: The study area is classified as Lowveld (A10), according to Acocks (1988). The project area falls within the Granite Lowveld Vegetation Type which is classified as Not Threatened (NT). This vegetation type occurs at altitudes of 250 - 700 m above mean sea level and is characterised by tall shrubland with few trees to moderately dense low woodland on deep sandy uplands (Mucina and Rutherford, 2006). Dominant species in this vegetation type are: Acacia nigrescens, Sclerocarya birrea subsp. caffra, Acacia nilotica, Albizia harveyi, Combretum apiculatum, C. imberbe, C. zeyheri, Ficus stuhlmannii, Peltophorum africanum, Pterocarpus rotundifolius, Terminalia sericea, Combretum hereroense, Dichrostachys cinerea, Euclea divinorum, Strychnos madagascariensis, Brachiaria nigropedata, Digitaria eriantha subsp. eriantha, Eragrostis rigidior, Melinis repens, Panicum maximum and Pogonarthria squarrosa (Mucina and Rutherford, 2006).

According to the MBSP category for terrestrial ecosystem priority areas the site is categorized as:

- Other Natural Areas
- ESA: Protected Area Buffer Zone (Mahushe Shongwe NR).

Ecological Support Area (ESA): Protected Area Buffers. ESA's are "areas that are not essential for meeting (conservation) targets, but play an important role in supporting the functioning of CBA's and that deliver important ecosystem services" (Lötter et al., 2014). Protected Area Buffers are areas that surround

proclaimed protected areas that moderate the negative impacts of land-uses that may affect the ecological functioning of those protected areas.

It is clear that the site is covered with indigenous vegetation but clearing of vegetation over the past few years is evident.

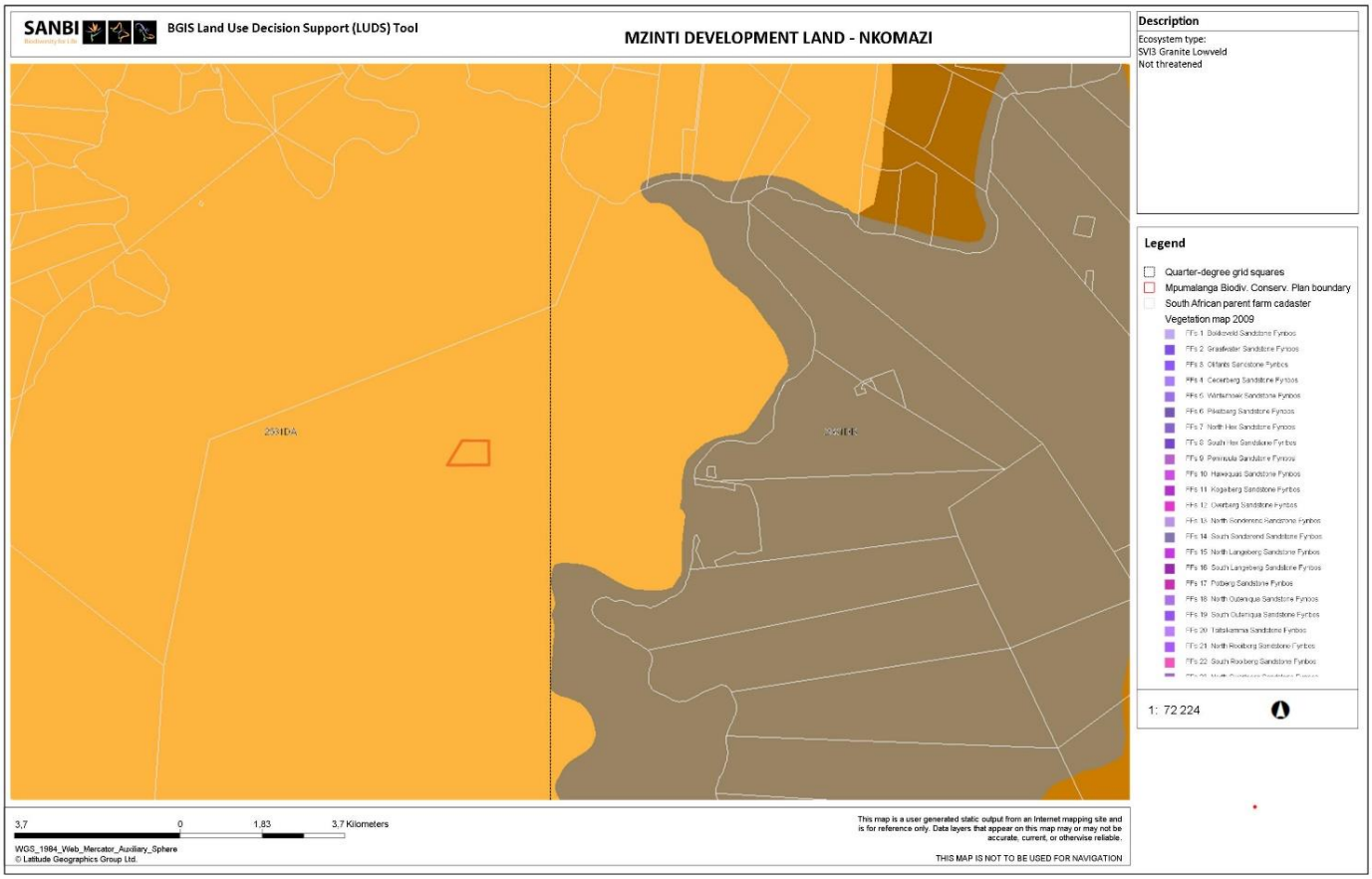

FIGURE 4: VEGETATION TYPE OF THE PROPOSED PROJECT AREA

The vegetation can be classified as closed woodland with the structure consisting mainly of shrubs and medium size trees of the following species: *Dichrostachys cinerea, Grewia bicolor, Phyllanthus reticulatus, Vachellia swazica, Senegalia nigrescens, Combretum apiculatum* and *Terminalia sericea*. Several large trees are present, notably *Aloe marlothii* (Protected, MNCA), *Berchemia zeyheri* (Protected, NFA)*, Schotia brachypetala, Sclerocarya birrea* (Protected, NFA) and *Diospyros mespiliformis* (Protected, NFA). No sensitive features or habitats such as wetlands or rock outcrops are present on site. No SCC plant or animals or signs thereof was recorded.


FIGURE 5: LARGE TREES AND SUCCULENTS SUCH AS *EUPHORBIA INGENS* AND *ALOE MARLOTHII* PRESENT ON SITE

FIGURE 6: THE DEGRADATION OF THE SURROUNDING NATURAL ENVIRONMENT DIRECTLY ADJACENT TO THE PROPOSED SITE

3. PUBLIC PARTICIPATION PROCESS

The purpose of this chapter is to provide an outline of the public participation process (PPP) to date and the way forward with respect to the Environmental Authorisation process.

Consultation with the public forms an integral component of the EA process. This process enables Interested and Affected Parties (I&APs) (e.g. directly affected landowners, national-, provincial- and local authorities, and local communities etc.) to raise their issues and concerns regarding the proposed activities, which they feel should be addressed in the Environmental Authorisation process. The PPP has thus been structured such as to provide I&APs with an opportunity to gain more knowledge about the proposed project, to provide input through the review of documents/reports, and to voice any issues or concerns at various stages throughout the EA process.

I&APs were identified during the public participation phase of the project. All the parties identified as an I&AP (surrounding landowners, relevant departments, stakeholders, local and district authorities) have automatically been registered in the I&APs database for the project. The registered I&AP list is attached as **Annexure C.1.**

In effort to engage potential stakeholders, different communication methods were used to inform them about the project and how to get involved in the EA process. These methods include:

- Distributing English Background Information Documents (BIDs) to all registered I&APs, 27 October 2023, proof of which is attached in **Annexure C.2**;
- Placement of media advert in a local newspaper (The Mpumalanga News) on 4 October 2023 (see **Annexure C.3**).
- Placing of a notice at the proposed site took place on 23 September 2023 (see **Annexure C.4**);

To date no comments have been received.

4. CONSIDERATION OF ALTERNATIVES

The EIA process requires the developer to identify and investigate/assess feasible and reasonable alternatives. The project alternatives range from the location where the activity is proposed, type of activity to be undertaken, design the of activity, technology to be used in the activity to the option of not implementing the activity (No-Go Alternative).

The assessment of the alternatives is a complicated and multi-faceted issue, which is essential to the success of this application and ultimately to the proper, responsible and sustainable operation of the proposed project.

4.1 Alternative Selection

4.1.1 Location Alternatives

No other locality alternatives could be investigated as this is the only portion of land provided to Injongo Investments (Pty) Ltd by the Matsamo Traditional Council.

4.1.2 No-Go Alternatives

The no-go alternative would be to not authorise the application for the Medi-Prime Hospital. Should this alternative be favourable, the potential for the local community to be provided with local health care services, and the potential job opportunities will be lost and residents of Mzinti will have to travel further from their place of residence to obtain such services.

5. SPECIALIST ASSESSMENT REQUIREMENTS AS IDENTIFIED IN THE SCREENING REPORT

The following specialist assessments were identified within the Department of Environmental Affairs Screening Report to be conducted as part of the Basic Environmental Impact Assessment:

5.1 Visual Impact Assessment

The proposed activity is located within an area which is currently being surrounded by areas being transformed informally (without services and the required approvals). Due to the existing transformation of the surrounding area currently taking place, the visual impact of the proposed hospital would not be much different from the current impact and therefore it is the opinion of the EAP that no Visual Impact Assessment is required for the proposed hospital.

5.2 Heritage and Paleontological Impact Assessment

According to the Heritage Resources Act 25, of 1999, a Heritage Impact Assessment is required when more than 5 000 m^2 is impacted or a linear activity is more than 300 m in length. As the project area affected by the proposed hospital is approximately 5Ha, a Heritage Impact Assessment was undertaken by Adansonia Heritage Consultants and the findings of the assessment can be summarised as follows:

Recent housing infrastructure is developing on the eastern, western and southern sides of the proposed project site. The dumping of domestic refuse is taking place on a large scale to the north of the property, near a borrow pit. Mr. Johannes Mokoena, a resident in the area, confirmed that there are no burial sites or graves within the proposed development. A family graveyard is visible to the south, outside of the property. No archaeological or historical features of significance were observed during the survey.

It is recommended that the applicant be made aware that distinct archaeological material or human remains may only be revealed during the construction operation. It is recommended that earthmoving activities be monitored and if subsurface archaeological material is present an assessment should be done by a qualified archaeologist. Based on the survey and the findings in this report, the specialist found no compelling reason which may prevent the proposed development to continue.

5.3 Terrestrial Biodiversity Assessment / Plant and Animal Species Assessment

Although the areas surrounding the project site has already been transformed, the 5Ha proposed for the hospital is still untransformed and located within an Ecological Support Area: Buffer of a Protected Area (ESA). For this reason, a Terrestrial Biodiversity Assessment was undertaken and the following findings were made:

The vegetation can be classified as closed woodland with the structure consisting mainly of shrubs and medium size trees of the following species: *Dichrostachys cinerea, Grewia bicolor, Phyllanthus reticulatus, Vachellia swazica, Senegalia nigrescens, Combretum apiculatum* and *Terminalia sericea*. Several large trees are present, notably *Aloe marlothii* (Protected, MNCA), *Berchemia zeyheri* (Protected, NFA)*, Schotia brachypetala, Sclerocarya birrea* (Protected, NFA) and *Diospyros mespiliformis* (Protected, NFA).

No sensitive features or habitats such as wetlands or rock outcrops are present on site. No SCC plant or animals or signs thereof was recorded. The specialist hereby states with high confidence that the site sensitivity for plant species is low. The following site recommendations and mitigation is proposed relevant to terrestrial plant species:

- Conserve large trees where possible on site.
- Re-introduce indigenous vegetation (indigenous to the local area) as part of landscaping.

The specialist also hereby confirms with high confidence that the site is of low sensitivity for animal species. The following site recommendations and mitigation is proposed relevant to terrestrial animal species:

- Re-introduce indigenous vegetation (indigenous to the local area) after completion in order to provide shade and habitat for animals.

Terrestrial biodiversity is low due to the transformed state of the larger local area as well as the modifications to the natural environment on site. No SCC plants or animals were recorded or are likely to be present. The following site recommendations and mitigation is proposed relevant to terrestrial biodiversity:

- Conserve large trees where possible on site.
- Provide efficient waste management services.

Aquatic biodiversity is very low due to the transformed state of the larger local area as well as on site. No aquatic biodiversity themes or features are present on site. The following site recommendations and mitigation is proposed relevant to aquatic biodiversity:

- Provide efficient waste management services.

5.4 Socio-economic Assessment

The proposed project will not have any negative impact on the socio-economic environment. Contrary to this, a number of additional job opportunities will be created during the construction and operational phase of the project, which will have a positive impact on the local community. In addition to the additional job opportunities to be provided, Mzinti will be provided with the required health care services which would also have a positive impact on the livelihoods of the community members.

As no negative socio-economic impact is expected with the proposed project, it is the opinion of the EAP that no Socio-Economic Impact Assessment is required.

6. METHODOLOGY OF ASSESSING THE SIGNIFICANCE OF IMPACTS

This section outlines the method used for assessing the significance of the potential environmental impacts during the construction/establishment, operational and decommissioning phases.

For each impact, the EXTENT (spatial scale), MAGNITUDE and DURATION (time scale) would be described, as shown in Table 5: Assessment criteria for the evaluation of impacts. These criteria are then used to determine the SIGNIFICANCE of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The mitigation described in the Report represents the full range of plausible and pragmatic measures but does not necessarily imply that they would be implemented.

The following tables show the scale used to assess these variables and defines each of the rating categories.

TABLE 5: ASSESSMENT CRITERIA FOR THE EVALUATION OF IMPACTS

Criteria	Category	Description
Extent or spatial influence of impact	**Regional**	Beyond a 30km radius of the candidate site.
	Local	Within a 30km radius of the candidate site.
	Site-specific	On site or within 100 m of the candidate site.
Magnitude of impact (at the indicated spatial scale)	**High**	Natural and/ or social functions and/ or processes are *severely* altered
	Medium	Natural and/ or social functions and/ or processes are *notably* altered
	Low	Natural and/ or social functions and/ or processes are *slightly* altered
	Very low	Natural and/ or social functions and/ or processes are *negligibly* altered
	Zero	Natural and/ or social functions and/ or processes remain *unaltered*
Duration of impact	**Long-term**	More than 10 years after construction
	Medium-term	Up to 5 years after construction
	Construction-term	Up to 3 years

The SIGNIFICANCE of an impact is derived by taking into account magnitude, duration and extent of each impact. The criteria employed in arriving at the different significance ratings is shown in Table 6.

TABLE 6: DEFINITION OF SIGNIFICANCE RATINGS

Significance ratings	Level of criteria required
High	• High magnitude with a regional extent and long-term duration • High magnitude with either a regional extent and medium-term duration or a local extent and long-term duration • Medium magnitude with a regional extent and long-term duration
Medium	• High magnitude with a local extent and medium-term duration • High magnitude with a regional extent and construction period or a site-specific extent and long-term duration • High magnitude with either a local extent and construction period duration or a site-specific extent and medium-term duration • Medium magnitude with any combination of extent and duration except site specific and construction period or regional and long term • Low magnitude with a regional extent and long-term duration
Low	• High magnitude with a site-specific extent and construction period duration • Medium magnitude with a site-specific extent and construction period duration • Low magnitude with any combination of extent and duration except site specific and construction period or regional and long term • Very low magnitude with a regional extent and long-term duration
Very low	• Low magnitude with a site-specific extent and construction period duration • Very low magnitude with any combination of extent and duration except regional and long term
Neutral	• Zero magnitude with any combination of extent and duration

Once the significance of an impact has been determined, the **PROBABILITY** and **CONFIDENCE** of this impact are determined using the rating systems outlined in Table 7 and Table 8. The significance of an impact should always be considered in concert with the probability of that impact occurring. Lastly, the **REVERSIBILITY** of the impact is estimated using the rating system outlined in Table 9**.**

TABLE 7: DEFINITION OF PROBABILITY RATINGS

Probability ratings	Criteria
Definite	Estimated greater than 95 % chance of the impact occurring.
Probable	Estimated 5 to 95 % chance of the impact occurring.
Unlikely	Estimated less than 5 % chance of the impact occurring.

TABLE 8: DEFINITION OF CONFIDENCE RATINGS

Confidence ratings	Criteria
Certain	Wealth of information on and sound understanding of the environmental factors potentially influencing the impact.
Sure	Reasonable amount of useful information on and relatively sound understanding of the environmental factors potentially influencing the impact.
Unsure	Limited useful information on and understanding of the environmental factors potentially influencing this impact.

TABLE 9: DEFINITION OF REVERSIBILITY RATINGS

Reversibility ratings	Criteria
Irreversible	The activity will lead to an impact that is in all practical terms permanent.
Reversible	The impact is reversible within 2 years after the cause of the impact is removed.

7. ENVIRONMENTAL IMPACT ASSESSMENT

The proposed hospital will affect the biophysical and social environment during the construction and operational phases of the development and therefore these impacts are in Section 7.1 and 7.2 below.

7.1 Impacts during construction phase

The construction activities are likely to result in the following environmental and socio-economic impacts. The identified impacts are listed below and discussed thereafter:

- *Impact on biodiversity;*
- *Generation of dust;*
- *Impact on soil (soil erosion and soil pollution);*
- *Impact on water resources;*
- *Sanitation and waste generation;*
- *Socio-economic impact.*

7.1.1 Impact on biodiversity

Description of the potential impact

The area surrounding the project area has already been cleared of vegetation due to the surrounding informal urbanisation of the area as well as sand mining activities being undertaken directly adjacent and north of the proposed site. The access to the proposed project site is currently also used as a dumping site and is therefore extremely degraded and being further degraded by ongoing unauthorised activities.

A Terrestrial Biodiversity Assessment was undertaken, and it was found that the sensitivity of the terrestrial biodiversity of the proposed hospital is low due to the ongoing wood harvesting being undertaken on site and clearance activities undertaken within the surrounding area. Several large trees are present, notably *Aloe marlothii* (Protected, MNCA), *Berchemia zeyheri* (Protected, NFA)*, Schotia brachypetala, Sclerocarya birrea* (Protected, NFA) and *Diospyros mespiliformis* (Protected, NFA). No sensitive features or habitats such as wetlands or rock outcrops are present on site. No SCC plant or animals or signs thereof was recorded.

In order to construct the hospital, the vegetation will have to be cleared and these species will have will be removed. The clearance of vegetation would result to the loss and fragmentation of habitat.

Significance of the impact

As noted above, the sensitivity of the terrestrial biodiversity of the proposed hospital is low due to the ongoing wood harvesting and informal settlements in the surrounding area. The habitat has already been fragmented by the surrounding activities. Due to the low sensitivity and existing fragmentation of the habitat, the magnitude of the impact is low.

The impact is of site-specific extent and long-term duration as the vegetation will be permanently lost. For this reason, the significance of the impact is rated as low prior to the implementation of mitigation measures. The implementation of mitigation measures would further reduce the impact to be of very low significance

TABLE 10: IMPACT ASSESSMENT – BIODIVERSITY DURING CONSTRUCTION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Impact on biodiversity **[NEGATIVE]**	**Low**	**Site specific**	**Long-term**	**Probable**	**Low**	**Very Low**

Mitigation measures

- The footprint of activities associated with construction activities must be restricted to project area.
- As far as possible, large trees must be conserved.
- Permit must be obtained for the removal and/or relocation of any protected flora.
- Re-introduce indigenous vegetation as part of landscaping.
- Provide efficient waste management services
- Stipulations of the Environmental Management Program (EMPr) should be adhered to during the construction phases of the project.

7.1.2 Generation of dust

Description of the potential impact

Soil is disturbed during the construction phase of the project which increases the possibility of dust generation affecting adjacent owners and road users.

Significance of the impact

The construction site is located within a township, with residents surrounding the project site. For this reason, the impact is regarded to be of medium magnitude as natural and/ or social functions and/ or processes could be *notably* altered. The impacts associated with the generation of dust is however of short duration and site-specific extent and is therefore assessed to be of low significance prior to the implementation of mitigation measures.

Mitigation measures are however recommended to minimise the generation of dust.

TABLE 11: IMPACT ASSESSMENT – GENERATION OF DUST DURING CONSTRUCTION

MPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Dust generation [NEGATIVE]	**Medium**	**Site Specific**	**Short-term**	**Probable**	**Low**	**Very Low**

Mitigation measures

- Areas may not be disturbed and left unattended for long periods of time;
- Construction site must be sprayed with water to limit the generation of dust of the surfaces if required.

7.1.3 Impact on soil

Description of the potential impact

The construction process will remove vegetation cover on site and disturb the soil surface which could lead to occurrence of soil erosion. The topography of the site slopes is however relatively flat, which reduces the possibility of erosion occurring.

Other activities which could have an impact on soil, include any spillage of hazardous substances. Hazardous substances such as oil, diesel etc., could be spilled while refuelling or using machinery, leading to the pollution of soil which can alter microbial processes and be toxic to soil organisms.

Significance of the impact

During establishment, soil could be impacted by the following:

- Erosion; and
- Contamination with the use and possible spillage of hazardous substances.

The significance of soil pollution as well as soil erosion is of medium magnitude, site specific and short duration and for this reason the impact is of low significance prior to the implementation of mitigation measures.

TABLE 12: IMPACT ASSESSMENT – IMPACT ON SOIL DURING CONSTRUCTION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Soil pollution [NEGATIVE]	**Medium**	**Site Specific**	**Short-term**	**Probable**	**Low**	**Very Low**

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Erosion [NEGATIVE]	**Medium**	**Site Specific**	**Short-term**	**Probable**	**Low**	**Very Low**

Mitigation measures

- To minimise the possibility of erosion, it is recommended that no disturbed areas be left unattended. Disturbance and removal must be restricted to the footprint of the site.
- Measures to reduce the velocity of water, must be taken on areas prone to erosion.
- Should there be any spillage of hazardous substances during the construction activities, soil must be removed up to a depth of 300mm and be disposed of at a registered hazardous waste disposal facility. Proof of such disposal must be kept on file.

7.1.4 Impact on water resources

Description of the potential impact

As noted in the description of the project area, there are no surface or ground water bodies within a close proximity to the project site. The only impact on water resources which must be taken into account is the use of water for construction purposes.

Water during construction must be used sparingly and it is noted that if water is abstracted from boreholes or any surface water body for this purpose, a Water Use License must be obtained for the abstraction.

Significance of the impact

As there are no surface of ground water bodies within the perimeter or within a close proximity to the site, the only impact to be considered is the use of water during the construction phase. Water for construction must be used sparingly and if water is not conveyed to the construction site, but abstracted from a surface or groundwater resource, such abstraction practises must be undertaken in accordance with the National Water Act 36 of 1998. And conditions of the Water Use License must be complied with.

TABLE 13: IMPACT ASSESSMENT – IMPACT ON WATER RESOURCES DURING CONSTRUCTION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Excessive water use [NEGATIVE]	**Medium**	**Local**	**Short-term**	**Probable**	**Medium**	**Low**

Mitigation measures

- Water used during the construction process must be monitored and metered;
- Any leaking taps or hoses must be closed immediately;
- If water is abstracted from a surface or ground water resource, abstraction must comply with the Water Use License issued.

7.1.5 Sanitation and waste generation

Description of the potential impact

During construction, domestic and construction waste is generated. The township of Mzinti is not being serviced as it is an informal township area. Waste generated during the construction phase is therefore stored and removed from site to a registered waste disposal site. Construction and domestic waste could have a significant impact on the surrounding environment as it is clear that the area adjacent to the proposed hospital site is currently being utilised as a dumping site. Improper waste management would further exacerbate the current waste generation and disposal challenges faced by the community members of Mzinti Township.

Significance of the impact

Improper waste disposal and sanitation practises will negatively impact the surrounding environment which is already being impacted negatively. Due to the existing situation within the surrounding area, the magnitude of the impact is medium. Waste will have to be stored and transported to the nearest registered landfill site and for this reason, the impact is of local extent. The impact is however of short duration during the construction phase and therefore the impact is of medium significance prior to the implementation of mitigation measures.

TABLE 14: IMPACT ASSESSMENT – SANITATION AND WASTE DURING CONSTRUCTION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Waste generation and disposal [NEGATIVE]	**Medium**	**Local**	**Short-term**	**Probable**	**Medium**	**Low**

Mitigation Measures

- Construction waste can be stored temporarily on an area demarcated specifically for this purpose. Construction waste must then be removed from site regularly;
- Waste storage area must be demarcated, and waste must be separated and then be removed to a registered waste disposal site on a regular basis;
- Chemical toilet facilities must be provided to construction workers and must be cleaned and maintained regularly;
- Sufficient refuse bins must be provided on site during construction; and
- Waste must not be left to decay on site.

7.1.6 Socio-Economic Impact

Description of the potential impact

During the construction activities, various temporary job opportunities are created which will have a positive socio-economic impact on the livelihood of the surrounding community.

In terms of safety and security, there is always risk associated when working with machinery and therefore it is essential that all workers comply with the Health and Safety Act 85 of 1993.

Significance of the impacts

Based on the methodology detailed in **Section 5**, the following ratings have been assigned to the 'employment opportunities' and impact associated with health and safety of employees, respectively.

The job opportunities during the construction phase are short-lived and therefore the impact is only of medium (+) significance. In terms of the health and safety aspects of workforce, the significance of the impact has been rated to be of low significance due to the short construction timeframe. Mitigation measures must however be adhered to.

TABLE 15: IMPACT ASSESSMENT – SOCIO-ECONOMIC IMPACT DURING CONSTRUCTION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Job opportunities **[POSITIVE]**	**Medium**	**Local**	**Short-term**	**Definite**	**Medium (+)**	**Medium (+)**
Health and Safety **[NEGATIVE]**	**Medium**	**Site Specific**	**Short-term**	**Probable**	**Low**	**Very Low**

Mitigation measures

The applicant and/or project manager must ensure that local residents receive preference for job opportunities where local labour might be required.

It is imperative that all personnel adhere to the Occupational Health and Safety Act 85 of 1998 and that no personnel enter any other surrounding properties.

7.2 Impacts during the Operational Phase

During operation, the activities associated with the hospital are likely to result in the following environmental and socio-economic impacts:

- *Impact on biodiversity*
- *Impact on soil;*
- *Impact on water resources;*
- *Generation of waste and waste disposal;*
- *Traffic Impact: and*
- *Socio-economic impact.*

7.2.1 Impact on biodiversity

Description of the potential impact

During operation, vegetation will be permanently lost and fragmented. The disturbed area could also lead to the spread of alien invasive species if left unattended and not rehabilitated.

Significance of the impact

Invasion of alien invasive species and use of pesticides and herbicides:

When natural vegetation is removed and activities are undertaken, the opportunity for invasive plant species within the perimeter of the site will increase and will be problematic if not adequately removed or managed. Alien vegetation is normally removed mechanically or chemically. Using harmful chemicals would kill all pest and alien vegetation but also affect other insects and mammals which must be protected. Mechanical removal or removal of alien vegetation by hand is therefore preferred above the chemical treatment thereof.

The impact of alien vegetation and the control thereof is of medium magnitude due to the project area being located within an ESA. The extent of the impact is local and of long-term duration and for this reason the spreading of alien invasive species is rated to be of medium significance prior to the implementation of mitigation measures.

TABLE 16: IMPACT ASSESSMENT – BIODIVERSITY DURING OPERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Spreading of alien invasive species [NEGATIVE]	**Medium**	**Local**	**Long-term**	**Probable**	**Medium**	**Low**

Mitigation measures

- An Invasive Species Management Programme must be compiled and complied with during the operational phase of the project;

- All indigenous tree species and vegetation used for landscaping, must be taken care of and maintained.
- Stipulations of the Environmental Management Program (EMPr) should be adhered to during the establishment and operational phases of the project.

7.2.2 Impact on soil

Description of the potential impact

During operation, hardened surfaces can give rise to the increase in the flow of water during storm events, resulting in erosion on areas surrounding the site if storm water structures are inadequate. It is proposed that the removal of storm water from the road surface and the entire development will be via open surface channels.

Significance of the impact

During operation, soil could be impacted by erosion, which results to the loss of topsoil, impacting the revegetation capability of the surrounding environment. The slope of the project area is however flat and therefore the possibility of soil being eroded is reduced, minimising the magnitude of the impact to be medium. The impact is site specific and of long-term duration and for this reason the impact is rated to be of medium significance prior to the implementation of mitigation measures.

TABLE 17: IMPACT ASSESSMENT – IMPACT ON SOIL DURING OPERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Erosion / Improper storm water management **[NEGATIVE]**	**Medium**	**Site Specific**	**Long-term**	**Probable**	**Medium**	**Low**

Mitigation measures

- Permanent measures must be taken on areas prone to erosion. These measures can include gabions or revegetation with indigenous plant species.
- A proper storm water management plan must be drafted and implemented.

7.2.3 Impact on water resources

Description of the potential impact

The project area is not serviced by the Nkomazi Local Municipality and therefore water will be dependent on the abstraction of on-site boreholes. As noted in the description of the project, 12 750 m^3 per annum

is required for the operations of the hospital and associated activities. Excessive use of water during operation could deplete the ground water resources, resulting in a negative impact on ground water resources within the catchment.

The applicant is in process of drilling the required boreholes on the property to confirm the availability of water for the demand required.

Significance of the impact

Water abstracted from ground water resources must comply with the regulations and conditions as stipulated within the National Water Act 36 of 1998. As stipulated within the NWA 36, of 1998, a Water Use License is required for the abstraction of any water resource and compliance with the conditions of such WUL would be required. Should the applicant exceed the volume of water to be authorised (if approved), thereby abstracting more than the recharge, the magnitude of the impact is regarded as high, as this would have a significant impact on the ground water resources within the catchment. The impact would be of local extent and long-term duration and therefore be of high significance prior to the implementation of mitigation measures. Implementing mitigation measures to ensure that water is abstracted in accordance with the volume authorised (if approved), would reduce the significance of the impact to be of low significance.

TABLE 18: IMPACT ASSESSMENT – IMPACT ON WATER DURING OPERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Excessive water use resulting to the depletion of ground water resources. [NEGATIVE]	**High**	**Local**	**Long-term**	**Probable**	**High**	**Low**

Mitigation Measures

- Stipulations of the Environmental Management Program (EMPr) should be strictly adhered to during the operational phase of the project.
- Abstraction of water must be undertaken in accordance with the regulations stipulated within the NWA 36, of 1998;
- Should a Water Use License be issued, conditions of such WUL must be adhered to.

7.2.4 Generation of waste and waste disposal

Description of the potential impact

As noted previously, the area is not serviced by the Nkomazi Local Municipality and therefore waste generation and disposal must be addressed by the applicant. Improper waste storage and disposal could lead to detrimental environmental impacts.

The types of waste generated by a hospital includes the following:

- Domestic waste
- Sewage/Effluent
- Medical Waste

The treatment of effluent is discussed in Section 1.5 and it is noted that a new 30KL/day Sewer Treatment Package Plant will be constructed to effectively treat and dispose of sewage and effluent generated.

Domestic waste will be stored within an area specifically provided for this purpose, until it is removed from site to the nearest registered landfill site for disposal.

Medical waste will also be stored separately in accordance with the National Health Act 61, of 2003 as well as the National Environmental Management: Waste Act 59 of 2008. Medical waste will be regarded as hazardous waste and be removed and transported to a facility which would dispose of such waste accordingly. For this project, only the storage and transportation of medical waste is assessed.

Significance of the impacts

As the area is not being serviced by the local municipality, proper storage of domestic and well as medical waste until removal is prudent. Improper waste storage and ineffective effluent treatment could lead to detrimental environmental impacts and impact the health of the surrounding community members as well as the patients receiving health treatment at the hospital.

Improper storage and transportation of medical waste would also result to a significant health hazard for patients and members of the surrounding community. For this reason, only registered waste collected and removal service providers may be used for the collection and transportation of such waste.

Taking the environmental and health aspects of the site into consideration, the impact of waste generation and disposal is of high magnitude, local extent and long-term duration. For this reason, the impact is rated to be of high significance prior to the implementation of mitigation measures. However, if the correct waste storage and removal procedures are adhered to, the impact is minimised to be of low significance.

TABLE 19: IMPACT ASSESSMENT – GENERATION OF WASTE AND WASTE DISPOSAL DURING OPERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Waste generation and disposal **[NEGATIVE]**	**High**	**Local**	**Long-term**	**Probable**	**High**	**Low**

Mitigation measures

- Domestic waste must be separated from hazardous and medical waste and stored separately until it can be removed to a registered waste disposal facility;
- Compliance with applicable regulations stipulated within the National Environmental Management: Waste Act 59 of 2008 and National Health Act 61, of 2003 must be considered;
- The Sewage Treatment Package Plant must be maintained regularly to ensure that the package plant is working optimally;

- The applicant must appoint a certified third-party contractor for the removal of domestic waste, hazardous waste, as well as medical waste. Proof of disposal must be provided to the applicant;
- Sufficient refuse bins must be available on site to reduce the possibility of littering on site during operation.

7.2.5 Traffic Impact

Description of the potential impact

Access to the development will be provided from a municipal gravel road which is located within a close proximity and to the west of the application site. It would be recommended for this gravel road to be upgraded and tarred to accommodate the additional traffic flow to and from the hospital. The access road turning from the municipal gravel road towards the hospital site, which is currently being utilised to access the borrow pit, would also have to be upgraded and surfaced to ensure uninterrupted flow of traffic to and from the hospital.

If the access roads are not upgraded as part of the project to accommodate the additional traffic generated, traffic flow to and from the hospital could become congested and could also become a safety hazard for motorists and pedestrians within the immediate area.

Significance of the impacts

The magnitude of the impact is rated as high, with a site-specific extent and long-term duration which would result to the impact being of medium significance prior to the implementation of mitigation measures.

TABLE 20: IMPACT ASSESSMENT – TRAFFIC IMPACT DURING OPERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Traffic Impact [NEGATIVE]	**High**	**Site Specific**	**Long-term**	**Probable**	**Medium (-)**	**Low (-)**

Mitigation measures

- The existing gravel roads must be upgraded to accommodate the additional traffic flow to be generated by the hospital.
- Detailed designs of the upgrading of the existing access roads must be undertaken.

7.2.5 Socio-economic Impact

Description of the potential impact

Although nurses and doctors will be providing the services at the Hospital, various other unskilled labour will also be required. The hospital will therefore provide much needed permanent job opportunities to some of the residents of Mzinti. The provision of these job opportunities will impact the livelihoods of the employed positively as it provides an opportunity for these workers to provide for their families.

In addition to the job opportunities created, the hospital will be providing health care services to the community, thereby improving the livelihoods of the surrounding community members.

Significance of the impacts

Based on the methodology detailed in **Section 6**, the following ratings have been assigned to the 'employment opportunities' impact before and after mitigation. The magnitude of the socio-economic impact is high, while the impact is of local extent and long-term duration. The impact is therefore of high (+) significance.

TABLE 20: IMPACT ASSESSMENT – SOCIO-ECONOMIC IMPACTS DURING OPERATION

IMPACT	BEFORE MITIGATION					AFTER MITIGATION
	Magnitude	Extent	Duration	Probability	Impact Rating	Impact Rating
Job opportunities **[POSITIVE]**	**High**	**Local**	**Long-term**	**Probable**	**High (+)**	**High (+)**
Improved livelihood of the surrounding community **[POSITIVE]**	**High**	**Local**	**Long-term**	**Probable**	**High (+)**	**High (+)**

Mitigation measures

Creating jobs and business opportunities for the local community will have a positive impact. No mitigation measures would be required to further enhance this impact; however, the applicant must ensure that local residents receive preference for job opportunities.

7.3 Environmental Impact Statement

The table below summarises the impact assessed during the construction and operational phases of the Medi-Prime Hospital. From the table below it is evident that the impacts can be reduced to be of low to very low significance if mitigation measures are implemented and adhered to.

TABLE 21: ENVIRONMENTAL IMPACT STATEMENT

IMPACT	SIGNIFICANCE BEFORE MITIGATION MEASURES	SIGNIFICANCE AFTER MITIGATION MEASURES
Construction Phase Impacts		
Impact on biodiversity	Low	Very Low
Generation of dust	Low	Very Low
Soil Pollution	Low	Very Low
Soil Erosion	Low	Very Low
Excessive water use	Medium	Low
Sanitation and Waste generation and dispoal	Medium	Low
Temporary job opportunities	Medium (+)	Medium (+)
Health and safety during construction	Low	Very Low
Operational Phase Impacts		
Spreading of alien invasive species	Medium	Low
Soil Erosion and improper storm water management	Medium	Low
Excessive water use resulting to the depletion of ground water resources	High	Low
Waste generation and disposal	High	Low
Traffic Impact	Medium	Low
Permanent Job Opportunites	High (+)	High (+)
Improved livelihood of the surrounding community	High (+)	High (+)

8. RECOMMENDATIONS AND WAY FORWARD

8.1 Assumptions and Limitations

In undertaking this investigation and compiling the Draft Basic Assessment Report, the following has been assumed:

- The information provided by the proponent is accurate and unbiased, and no information that could change the outcome of the Environmental Authorisation process has been withheld.
- The scope of this investigation is limited to assessing the environmental impacts associated with the construction and operation of the Medi-Prime Hospital.
- The conclusion and recommendations proposed are based solely on the information, scope of works as agreed with the proponent.

8.2 Conclusion

The essence of all environmental assessment processes is aimed at ensuring informed decision-making and environmental accountability. Furthermore, it assists in achieving environmentally sound and sustainable development. The impact assessment for this project has been undertaken in line with the requirements prescribed in the NEMA regulations.

The assessment of the possible impacts associated with the construction and operational activities, concluded that the impact on the surrounding environment is of **low significance** if mitigation measures are implemented.

Recommendations have however been made to address the impacts which could affect the biophysical and socio-economic environment and especially with waste management practises. Recommendations for the mitigation of impact are included within Section 7 and also the Draft Environmental Management Plan attached.

The significance of the potential environmental (biophysical and social) impacts associated with the proposed project are discussed in detail under **Section 7.**

It is the opinion of the EAP that the EA for this project should be granted, and the proposed mitigation included as the conditions of the authorisation.

8.3 Way Forward

The next steps for the Environmental Authorisation process will be to distribute the Draft Basic Assessment Report and make it available to the public (including the registered I&APs) and Stakeholders for a period of 30 days, during which the Competent Authority (DARDLEA) will also be given the opportunity to provide comments on the report or advise on any additional information required. After the 30-day comment period, all comments will be addressed by the EAP and incorporated within the Final Basic Assessment Report to be submitted to the DARDLEA for decision making. All registered I&APs will be notified of the decision and will be given an opportunity to appeal as per the NEMA requirements.