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**AUGUST 2020
FINAL BASIC ASSESSMENT REPORT
CONSTRUCTION OF THE ESTCOURT PRIVATE HOSPITAL
ON ERF 3229 ESTCOURT
INKOSI LANGALIBALELE LOCAL MUNICIPALITY
NDLOMZINTU TRADING (PTY) LTD
EIA REF NO: DC23/0010/2020**

**This report was prepared by EnviroPro Environmental Consulting in terms of
Appendix 1 to GNR 982**

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Executive Summary

Ndlomzintu Trading (Pty) Ltd propose to construct a new private hospital just outside of Estcourt town. The site is located on Erf 3229 of Estcourt Ext 19 Township in the iNkosi Langalibalele Local Municipality, uThukela District. The centre of the site is located at 29°01'20.69"S; 29°50'59.76"E. The site is accessed directly off Ntabamhlope Road. The hospital will comprise of medical beds, surgical beds, new-born intensive care unit beds, paediatric beds, high care beds, ICU beds, day beds, obstetrics beds, general theatres and a minor theatre. The development will tie into the bulk municipal system for water provision & sewerage disposal.

There are no watercourses on the site itself with the nearest watercourse located 180m south of the study area. This watercourse is a tributary of the Bushmans River. A total of 2.22 hectares of indigenous degraded grassland will be cleared to accommodate the development which requires environmental authorisation in terms of the NEMA EIA regulations.

The following key impacts and mitigation measures have been identified and assessed:

- **Uncontrolled stormwater discharge having an indirect negative impact on the downstream wetland system:** The stormwater attenuation system has been designed to release flow at near natural flow volumes and velocities. The release point will be at least 125m away from the wetland edge which will allow stormwater to percolate naturally and evaporate prior to discharge into the wetland. The wetland specialist has rated this impact as having low significance after mitigation.
- **Loss of terrestrial habitat:** The clearance of indigenous grassland to accommodate the development is unavoidable, however the impact has been rated as low by the specialist. The grassland habitat on site has historically been subjected to low level anthropogenic impacts associated with veld management and livestock farming. The habitat that will be lost is also positioned within a development node and of limited conservation potential.
- **Development in area with a high palaeontological sensitivity:** Palaeontologists conducted a site survey to confirm the presence of any fossils within the development footprint. No fossil plants or vertebrates were observed, and it is therefore the opinion of the palaeontologists that the hospital will not impact upon the palaeontological record of South Africa.
- **Damage to surrounding infrastructure and services:** The construction activities could temporarily disrupt access along Ntabamhlope Road, which is the main road into Estcourt. The development will also tie into the existing services, which may be disrupted during construction. All services must therefore be identified prior to construction and all stakeholders notified prior to any service disruptions. Standard good practise management measures have been included in the Environmental Management Program to minimise the impact of construction on nearby residents.
- **Provision of private medical health care facility to the Estcourt area:** Urban-Econ confirmed that there is a demand for the proposed hospital given the low level of existing private healthcare in the area and the growing population of Estcourt. This is a positive socio-economic impact associated with the development.

The above impacts can be mitigated by following the recommendations provided in this report and the attached Environmental Management Programme (EMPr). Construction activities must be monitored and controlled through the implementation of the EMPr.

No additional site alternatives have been considered as the private hospital targets the nearby town of Estcourt and the property has already been secured by the applicant and rezoned accordingly. There are also municipal services available to the property for the hospital to connect to. Two layout alternatives have been assessed. The preferred alternative is for the hospital to be developed entirely in the eastern portion of the site. The total amount of vegetation cleared is similar for both layout alternatives however the preferred layout provides for better connectivity with the adjacent grassland and open space system.

Taking into consideration the above impacts and mitigation measures, it is the EAP's opinion that there are no significant environmental impacts associated with the proposal which cannot be mitigated. Therefore, it is recommended that the preferred site and layout alternative be authorised for the Construction of the Estcourt Private Hospital on Erf 3229 of Estcourt Ext 19.

Contents

Executive Summary.....	3
Section 1: Scope of Work and Location of Activity	5
1.1 Project Title.....	5
1.2 A Description of the Activities to Be Undertaken Including Associated Structures and Infrastructure As per Section 3(d) (ii)	5
1.2.1 Construction Methodology.....	5
1.3 Description of Feasible Alternatives as Per Section 3(h)(i)	6
1.4 All Listed and Specific Activities to Be Triggered and Being Applied For As Per Section 3(d) (i)....	7
1.5 Location of Activity as per Section 3 (b)(i)-(iii).....	7
Section 2: Site Description and Surrounding Land Use as per section 3(h)(iv) and (k)	11
2.1 DEFF Screening Report	11
2.2 Topography and Physical Characteristics of Site	12
2.3 Surface Water and Ground Water	12
2.4 Fauna and Flora	13
2.5 Heritage and Cultural Aspects.....	14
2.6 Socio Economic Environment.....	14
2.7 Surrounding Environment and Land Uses	14
Section 3: Policy and Legislative Context	16
3.1 Identification of All Legislation, Policies, Plans, Guidelines, Spatial Tools, Municipal Development Planning Frameworks And Instruments As Per Section 3(e) (i) And Compliance Of Proposed Activity With Legislation And Policy 3(e) (ii)	16
Section 4: Motivation, Need and Desirability.....	17
4.1 Need and Desirability as Per Section 3(F)	17
4.2 Motivation for Preferred Site, Activity and Technology Alternative	23
4.2.1 Preferred Site Alternative.....	23
4.2.2 Preferred Layout Alternative	23
4.2.3 Preferred Technology Alternative	23
Section 5: Public Participation	24
5.1 Notification of Interested and Affected Parties	24
5.2 Registered Interested and Affected Parties.....	25
5.3 Comments	25
Section 6: Impact Assessment.....	26
6.1 Methodology to Determine and Rank Significance and Consequences of Impacts Associated With All Alternative as Per Section 3(h) (vi).....	26
6.2 Preferred Site, Layout & Technology Alternative	27
6.3 Alternative Layout & Technology Alternative.....	34
6.4 Environmental Impact Statement as per section (l).....	35
6.5 Impact Management Objectives and Outcomes for the Development for Inclusion in the EMPr as Per Section 3(m).....	36
6.6 Assumptions, Uncertainties and Gaps in Knowledge Relating To the Assessment and Mitigation Measures Proposed As Per Section 3(o)	36
6.7 Period for Which Authorization Is Required, Proposed Monitoring and Auditing and Post Construction Requirement's	37
6.8 Financial Provisions as Per Section 3(s)	37
6.9 EAP Opinion on Whether Or Not to Authorize Activity and Recommendations and Conditions for Authorisation as Per Section 3(n) and (p)	37
6.10 Summary of Recommendations for the construction of the Estcourt Private Hospital:.....	37

Appendices

Appendix A: Drawings and Maps	39
Appendix B: Specialist Reports	40
Appendix C: Noticeboard.....	41
Appendix D: Notification	42
Appendix E: Advert.....	43
Appendix F: Registered I & APs	44
Appendix G: Comments and Responses	45
Appendix H: Impacts Scoring Matrix	46
Appendix I: EAP Declaration	47
Appendix J: Environmental Management Programme.....	48

Section 1: Scope of Work and Location of Activity

1.1 Project Title

Construction of the Estcourt Private Hospital on Erf 3229 of Estcourt Ext 19.

1.2 A Description of the Activities to Be Undertaken Including Associated Structures and Infrastructure As per Section 3(d) (ii)

Ndlomzintu Trading (Pty) Ltd propose to construct a new private hospital west of Estcourt town. The proposed site is located on Erf 3229 of Estcourt Ext 19 township, which is accessed directly off Ntabamhlope Road at 29°01'20.69"S; 29°50'59.76"E. **The total extent of the property is 5.2 hectares. The total development footprint to be occupied by the proposed hospital is 2.2 hectares.**

The first phase of the new hospital will accommodate 73 hospital beds, doctors consulting wings as well as Casualty, Radiology & Pathology Departments. The total number of beds will increase to 111 as part of the second phase of the hospital. **The proposed private hospital will ultimately include the following:**

- Consultation Offices, Pathology, Pharmacy, Restaurant, tearoom, Administration, Cafeteria, Kitchen, Laundry, Services Area and Waste Area;
- Radiology, Labour Unit and NNICU;
- Maternity Ward;
- Paediatrics Ward;
- Medical Ward;
- Surgical Ward;
- Theatre Complex;
- Casualties Ward;
- Day Ward; and
- ICU and Intensive Ward.

The development will connect to the bulk municipal system for bulk water provision & sewerage disposal. **The connection points for both are available on site and are indicated in Figure 2.** The municipal Waste Water Treatment Works (WWTWs) is in the process of being licenced **with the Department of Water and Sanitation (DWS) and therefore DWS have confirmed during the Water Use Authorisation pre-application meeting that the development may connect to the municipal WWTWs. A conservancy tank is therefore not required.**

The proposed development will result in the clearance of 2.2 hectares of indigenous grassland which requires environmental authorisation from the Department of Economic Development, Tourism and Environmental Affairs. Please refer to Appendix A for the proposed layout which includes the future expansions.

Figures 1 and 2 below illustrate the site locality and provide an overview of the environment where the development is proposed.

1.2.1 Construction Methodology

On receipt of Environmental Authorisation, the following construction methodology is anticipated:

- A construction camp will be established in the eastern portion of the property, within the development footprint.
- Clearing and grubbing of the site will be undertaken by heavy machinery i.e. a TLB. Bulk earthwork will take place once the site has been prepared. Approximately 2.2 hectares of grassland will be cleared.
- The remainder of the site will be cordoned off to prevent any further clearance of vegetation from occurring.
- Construction of the hospital and associated services will take place in accordance with the attached Environmental Management Program (EMPr).
- Once construction is complete, all exposed areas will be rehabilitated according to a landscaping plan to ensure there is no long-term erosion.
- A Post Construction audit will take place by an independent Environmental Control Officer to ensure that the site is stable and there are no residual impacts remaining.

1.3 Description of Feasible Alternatives as Per Section 3(h)(i)

“Alternatives” are defined as “different means of meeting the general purpose and requirements of the activity”¹. Alternatives considered must be feasible and reasonable². The general purpose and requirement for this project is for the development of a private healthcare facility to cater for the needs of the local population while complementing the existing services offered by the public facilities in Estcourt and competing with private hospitals in Ladysmith. This need has been considered when identifying and investigating different alternatives.

Site Alternatives

Alternative 1 (Preferred Alternative)

The geographic and socio-economic attributes of the market area form a crucial part of any development. No additional site alternatives have been considered as the primary market area for the private hospital consists predominately of the Estcourt area and its surroundings, which have a low level of existing private healthcare and a growing population³. The secondary market is comprised of other outlying areas from which people will travel to the new hospital. The applicant is an entity, Ndlomzintu Trading (Pty) Ltd, which is comprised of a group of doctors who purchased the property with the vision for developing a private hospital. An application to rezone the property to accommodate a hospital has been submitted and approved by the local municipality. There are also municipal services available to the property for the hospital to connect into, making the site desirable for development. The site fulfils the general purpose and requirements for the activity and therefore no other feasible or reasonable site alternatives have been assessed in this report.

Layout Alternatives

Alternatives considered must aim to address key significant impacts of the proposed activity by “maximising benefits and avoiding or minimising the negative impacts”⁴. Two layout alternatives have been assessed in this report and are attached under Appendix A. Figure 3 shows a comparison of the layout alternatives on an aerial photograph of the site.

Alternative 1 (Preferred Alternative)

The preferred alternative is for the hospital to be developed in the eastern portion of the site. The total development footprint, including the future expansion, is 2.2 hectares. There is one entrance off Ntabamhlope Road, which will be used by the public and as the entrance for service vehicles. The oxygen tank storage area will be located behind the hospital in the south-eastern corner of the property. Construction is therefore restricted entirely to the eastern portion of the property in Preferred Layout Alternative 1.

The nearest wetland is located 78m south of the site. Although no sensitive habitats were identified on the property and the grassland is described as having limited conservation potential⁵, the western portion of the property will remain undisturbed providing a link with the adjacent grassland and open space system to the north and south of the site. Layout Alternative 1 is therefore the preferred layout offering more opportunity for retention of ecological linkages with the surrounding environment.

Alternative 2

Alternative 2, originally proposed by the applicant, is for the development of the hospital across the centre of the site. This layout includes the construction of a service road on the western side of the property, which will be accessed from the municipal water treatment works. The oxygen tank will be located on the western side of the hospital and will be visible from Ntabamhlope Road. The hospital will be constructed across the centre of the site, with parking and the main access road in the eastern portion (see Figure 3 Alternate Hospital Footprint).

The total development footprint is 2.1 hectares and therefore the area of vegetation cleared is similar to the preferred Layout Alternative however the layout does not offer an opportunity for an ecological link to be maintained between the grassland to the north and south of the site. The wetland system is also closer to the development footprint (46m south of the site).

¹ Environmental Impact Assessment Regulations, 2014 as amended published under Government Notice No. 326 in Gazette No. 40772 of 07 April 2017.

² DEA & DP (2010) **Guideline on Alternatives**, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA & DP).

³ Section 7.1.1 of the Urban-Econ Estcourt Private Hospital Market Research Report (2019) attached under Appendix B.

⁴ DEA & DP (2010) **Guideline on Alternatives**, EIA Guideline and Information Document Series. Western Cape Department of Environmental Affairs & Development Planning (DEA & DP).

⁵ Section 6.2.3 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

Technology Alternatives

Two sewage disposal alternatives are **initially investigated for** the proposed Estcourt Private Hospital. As per the Engineering Services Report attached under Appendix B, there is a municipal sewerage connection available to the development (indicated in Figure 2). The municipality have confirmed that there is sufficient capacity at the municipal WWTWs to accept the expected peak flow of 1.16l/sec from the private hospital (**letter of confirmation attached to the Engineering Services Report under Appendix B**). This is the preferred technology alternative for handling the disposal of sewage on site.

The municipality are in the process of licencing the WWTWs with DWS. **DWS have recently confirmed during the Water Use Authorisation pre-application meeting that the development may connect to the municipal WWTWs while the municipality are in the process of obtaining the Water Use License from DWS. A conservancy tank was assessed as a short-term alternative option for sewage disposal in the Draft BAR. The preferred alternative for sewage disposal is connecting to the municipal WWTWs.**

The No Go Alternative

The proposed Estcourt Private Hospital will not be constructed, and the property will remain in its current state. The grassland on site falls within a vegetation type that is least threatened and does not have any conservation value. The development opportunity will be lost, delaying the introduction of private medical facilities to the Estcourt area and surrounds. The No Go alternative is the baseline against which the layout alternatives described above have been assessed.

See Appendix A for Preferred and Alternate Layouts.

1.4 All Listed and Specific Activities to Be Triggered and Being Applied For As Per Section 3(d) (i)

GNR	Activity Number	Activity as per the legislation	Activity as it applies to the proposal
Listing Notice 1; 4 th December 2017 as amended	27	<i>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> <i>(i) the undertaking of a linear activity; or</i> <i>(ii) maintenance purposes undertaken in accordance with a maintenance management plan</i>	The proposed Estcourt Private Hospital will result in the clearance of 2.2 hectares of indigenous vegetation.

1.5 Location of Activity as per Section 3 (b)(i)-(iii)

District Municipality	uThukela District Municipality																			
Local Municipality	iNkosi Langalibalele Local Municipality																			
Wards	Ward 17																			
Area / Town / Village	Estcourt																			
Co-ordinates:	Latitude							Longitude												
Estcourt Private Hospital location:	29°01'20.69"S							29°50 59.76"E												
Property Description:	Erf 3229 of Estcourt Ext 19 Township																			
21 Digit Surveyor General no.	N	0	F	S	0	4	0	2	0	0	0	0	3	2	2	9	0	0	0	0

Figure 1: 1:50 000 Map Indicating the Location of the Estcourt Private Hospital in Red

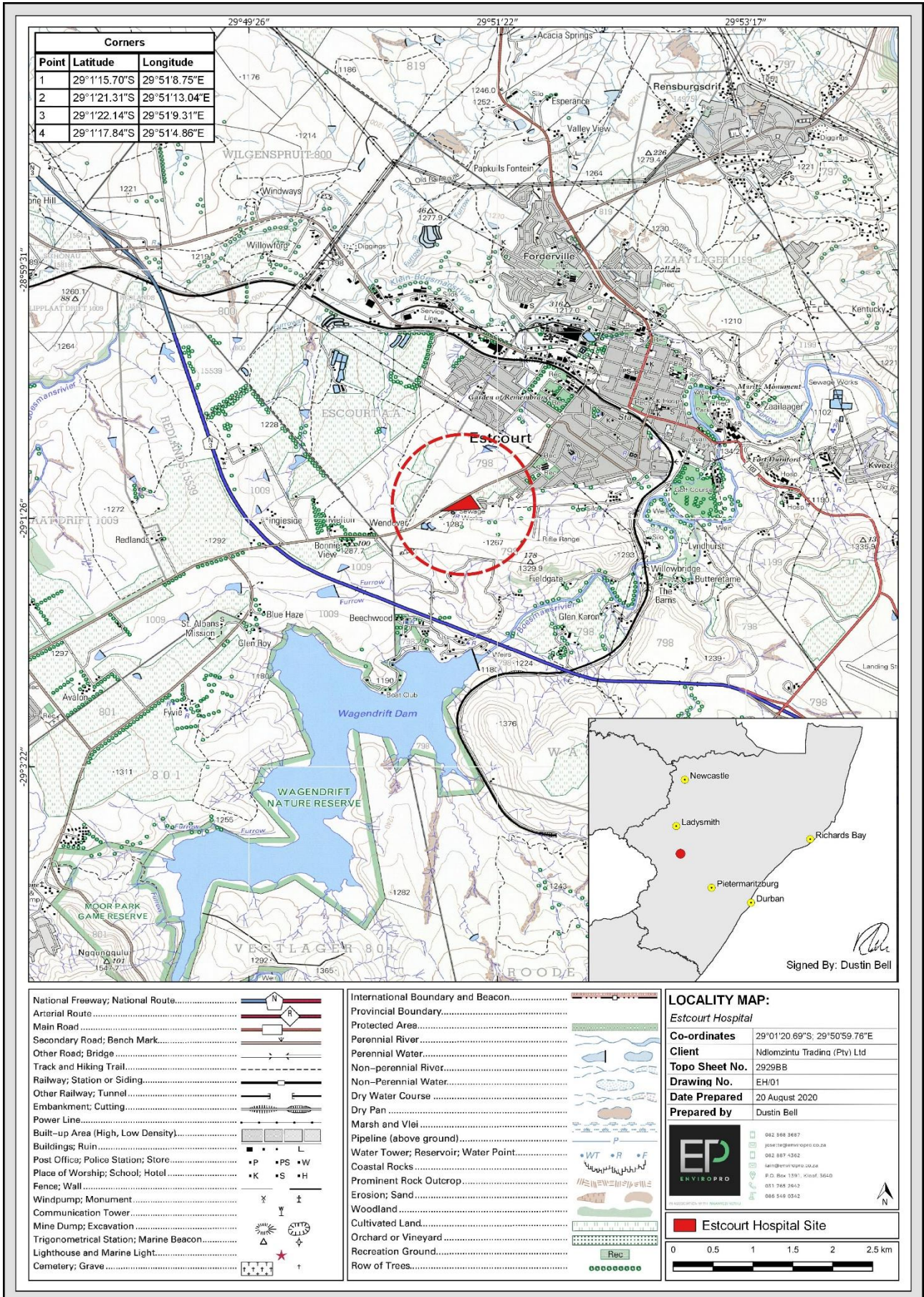
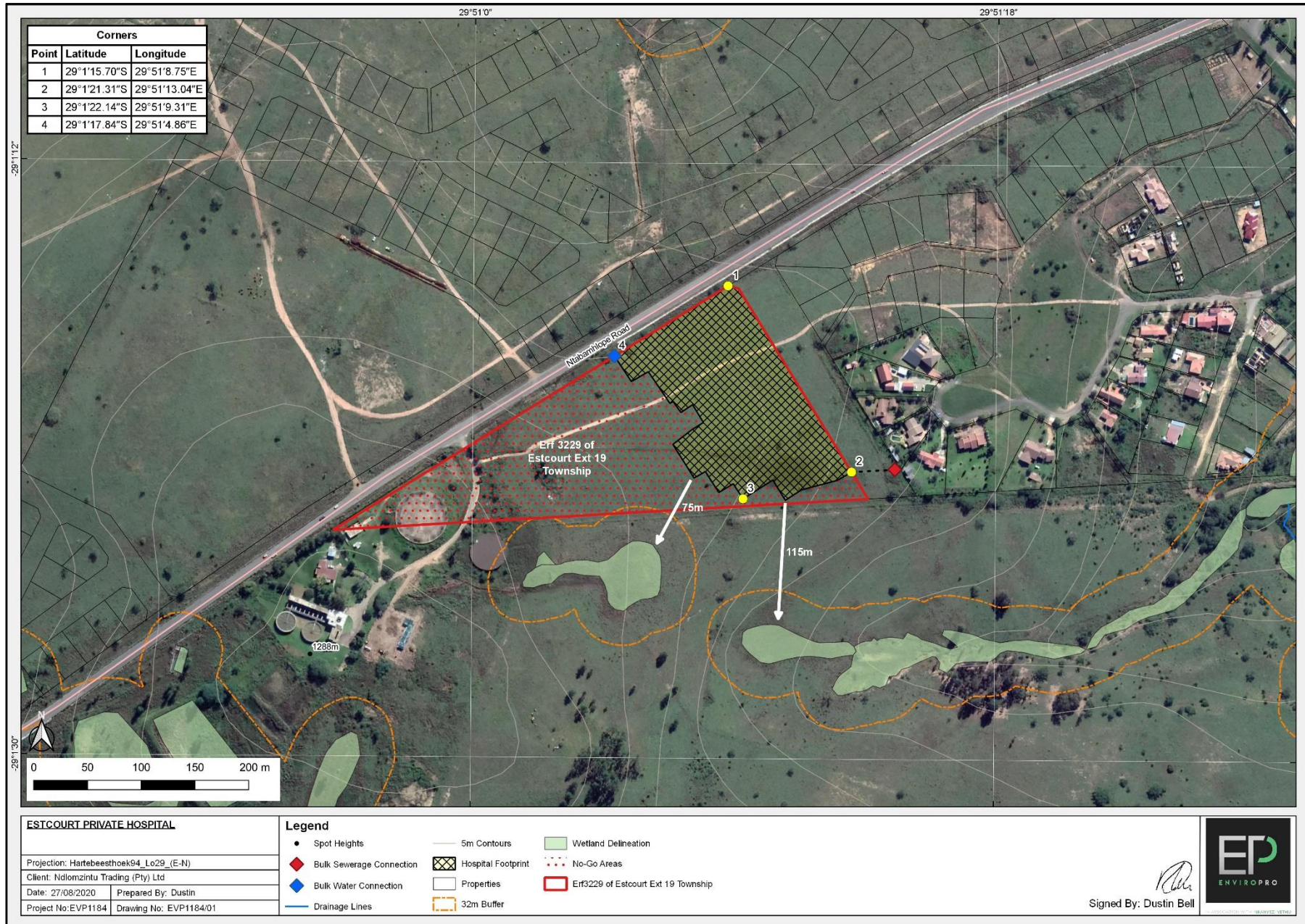
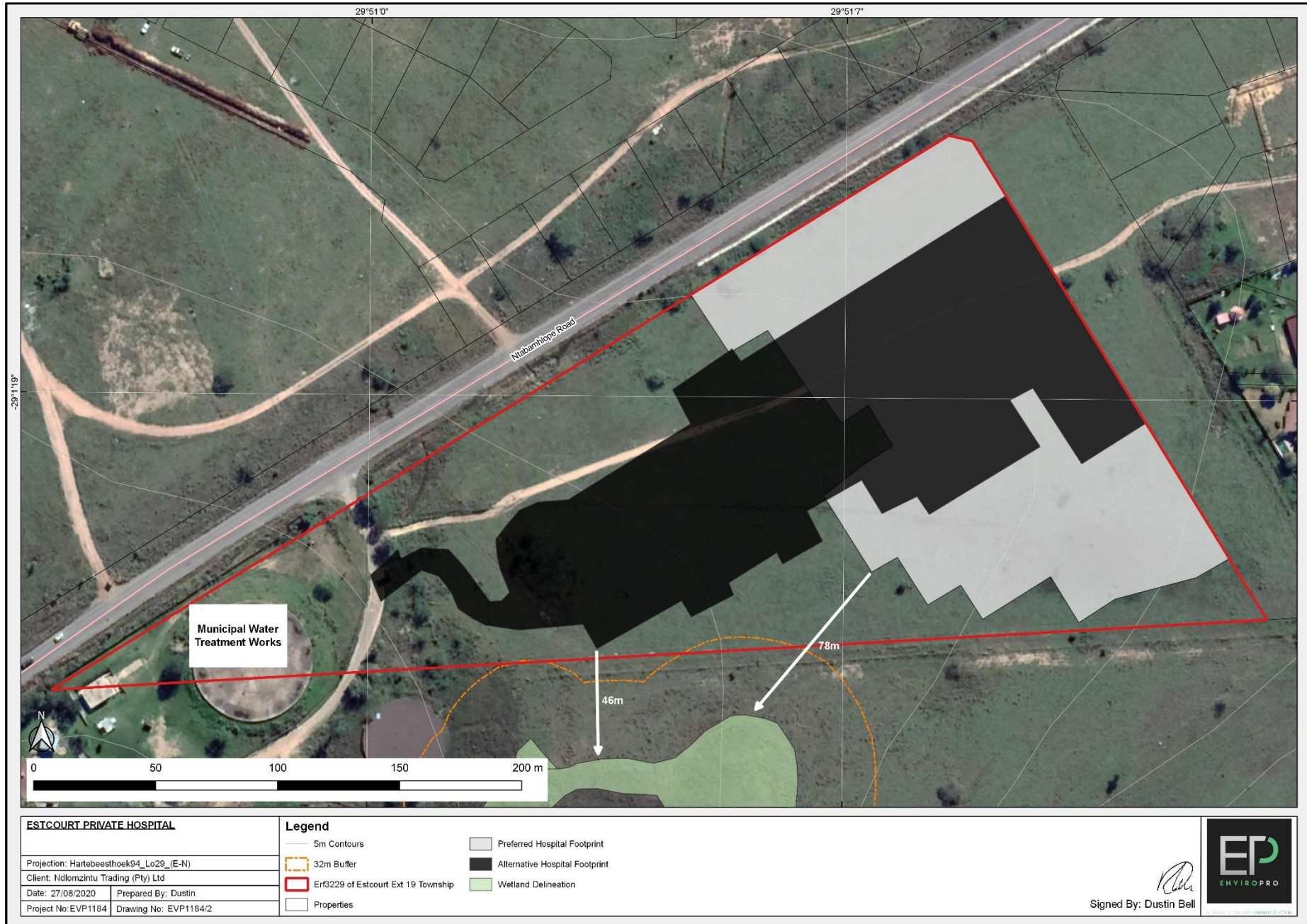


Figure 2: Aerial Photograph Showing The Location Of The Proposed New Estcourt Private Hospital And Associated Watercourses (Source: QGIS Vs 2.3 With SDP Wetland Overlay, 2020).



Signed By: *Dustin Bell*
 EP ENVIROPRO

Figure 3: Aerial Photograph Showing the Preferred and Alternate Layouts for the Proposed Estcourt Private Hospital (Source: QGIS Vs 2.3 With SDP Wetland Overlay, 2020).



Section 2: Site Description and Surrounding Land Use as per section 3(h)(iv) and (k)

2.1 DEFF Screening Report

A Screening Report was generated via the DEFF Screening Tool (please refer to Appendix B for the full DEFF report) which details potential specialist reports that may be required based on a desktop level assessment conducted by the screening tool. Table 1 below summarises the screening tool recommendations, indicating whether they are applicable to the specifics of the site and project in question and where they are applicable, indicates the sections of the BAR where these have been addressed. As per the Screening Tool Guidelines, it is the responsibility of the EAP to confirm this list and to motivate in the BAR, the reason for not including any of the identified specialist studies by providing photographic evidence of the site situation. Figures 6 & 7 provide photographs of the site and surrounding environment.

Table 1: DEFF Screening Report Recommendations (Appendix B)

Specialist Assessment	Conducted	Reason
Landscape/Visual Impact Assessment	No	Due to the nature of the project, the surrounding land uses described under Section 2.7 and the location of the proposed hospital in a logical development corridor directly accessed off Ntabamhlope Road, no visual impacts are anticipated and as such, a Landscape/Visual Impact Assessment was not required.
Archaeological and Cultural Heritage Impact Assessment	Yes	Please refer to <i>Heritage and Cultural Aspects</i> under Section 2.5. The Heritage Impact Assessment is attached under Appendix B of the BAR.
Palaeontology Impact Assessment	Yes	Please refer to <i>Heritage and Cultural Aspects</i> under Section 2.5. The Palaeontological Impact Assessment is attached under Appendix B of the BAR.
Terrestrial Biodiversity Impact Assessment	Yes	Please refer to <i>Fauna and Flora Aspects</i> under Section 2.4. The Wetland & Vegetation Assessment is attached under Appendix B of the BAR.
Aquatic Biodiversity Impact Assessment	Yes	Please refer to <i>Surface Water</i> under Section 2.3. The proposed development is located 78m away from the nearest watercourse and therefore a full aquatic assessment was not required. The Wetland & Vegetation Assessment is attached under Appendix B of the BAR.
Avian Impact Assessment	No	During the site inspection carried out by the ecological specialist, no sensitive habitat was identified, with the grassland having been subjected to low intensity anthropogenic manipulations and impacts. No avian breeding grounds or sensitive foraging areas were noted by the specialist. There is vast open space to the south and north of the study area and therefore an Avian Impact Assessment was not deemed necessary.
Socio-Economic Assessment	Yes	Please refer to the <i>Need and Desirability Aspects</i> of the project under Section 4.0. The Market Research Report, prepared by Urban-Econ Development Economists is attached under Appendix B of the BAR.
Plant Species Assessment	Yes	Please refer to <i>Fauna and Flora Aspects</i> under Section 2.4. The Wetland & Vegetation Assessment is attached under Appendix B of the BAR.
Animal Species Assessment	No	During the site inspection carried out by the ecological specialist, no sensitive habitat was identified. The specialist confirmed that the habitat that will be lost is located within a development node and of limited conservation potential. The grassland on site has been used for livestock farming. The southern portion of the property will remain undeveloped. An Animal Species Assessment not deemed necessary.

2.2 Topography and Physical Characteristics of Site

The following applies to the area surrounding the sites as per the Figures 1 - 3 above.

The gradient of the sites are as follows:

Gradient	Description
Flat	N/A
1:50 – 1:20	N/A
1:20 – 1:15	The local topography has a gentle gradient at approximately 1:18 in a north to north-easterly direction ⁶ .
1:15 – 1:10	N/A
1:10 – 1:7,5	N/A
1:7,5 – 1:5	N/A
Steeper than 1:5	N/A

The topographical features and landforms of the site and surrounding area are as follows:

Topographical Feature	Description
Ridgeline	N/A
Plateau	The site is located on a plateau.
Side slope of hill/mountain	N/A
Closed valley	N/A
Open valley	N/A
Plain	N/A
Undulating plain/low hills	N/A
Dune	N/A
Sea-front	N/A

Figure 4: Elevation Profile for the Site taken from North to South (Source: Google Earth Pro, 2020).



2.3 Surface Water and Ground Water

The project area is situated in the quaternary catchment V70D, within the Pongola to Mtamvuna Water Management Area (WMA 4). The site drains into the Bushmans River just downstream from Wagendrift Dam. There are no drainage lines on the site itself with the nearest drainage line being a first order tributary of the Bushmans River, located approximately 180m south. The Bushmans River is 1.6km south of the property, as the crow flies.

The National Freshwater Ecosystem Priority Area (NFEPA) database shows wetland in the eastern and western portions of the study area. The wetland specialists visited the site in May and October 2019 to determine the presence and extent of wetlands on site and within 500m of the site. The specialist confirmed that there are no wetlands on the property. The municipal Water Treatment Works (WTW), located immediately west of the site is a "significant artificial water source that has stimulated the formation of wetland like conditions in a number of areas surrounding the WTW and adjacent to the proposed development site"⁷. The wetland

⁶ Hemingway & Associates cc. (2012) Proposed New Private Hospital on Erf 3299 Estcourt - Geotechnical Investigation.

⁷ Section 5.1.2 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

specialist delineated 12 wetland hydrogeomorphic (HGM) units within 500m of the property, most of which are induced or artificial due to the overflow of water from the nearby WTW.

Delineated wetlands are shown in Figure 2. Table 7 in the Wetland & Vegetation Assessment, attached under Appendix B, provides the classification, nature and description of each of the units identified during the delineation exercise. The nearest wetland system, HGM 6b, is artificial and fed by water from the WTW (solely reliant on this source) Hygrophilous vegetation has become established where conditions are suitable. HGM 1b, 115m south of the proposed development, is a natural valley head seep which may receive supplementary water input from HGM 6b and the WTW. Vegetation in this wetland consisted of *Hyparrhenia hirta*, and *Imperata cylindrica*. HGM 2 is immediately downstream of HGM 1b and consists of a wide shallow erosion gully which is well drained. No surface water was present, despite upstream seepage from 1b. *Watsonia pillansii* was present and formed an extensive colony.

Considering the distance between the development and all delineated wetlands, the wetland specialist concluded that there would be no direct impact on the wetlands. The greatest risk to the downstream wetland identified by the specialist was the uncontrolled release of stormwater from the site into the wetland. The stormwater attenuation system has been designed by the engineer to release flow at near natural flow volumes and velocities thereby mitigating against this potential impact.

2.4 Fauna and Flora

The site lies in the central-eastern part of the Main Karoo Basin and comprises rocks of the lower Karoo Supergroup, in particular the Estcourt Formation (Beaufort Group, Karoo Supergroup). This formation is now called the Normandien Formation (Johnson et al., 2006). The fauna and flora found within the area have been described in the Wetland and Vegetation Assessment as follows:

- Ecosystem Type: The site is located outside of any threatened ecosystems delineated terms of section 52 of NEMBA and mapped by the South African National Biodiversity Institute.
- Vegetation Type: KwaZulu-Natal Highland Thornveld (Gs 6) vegetation type:
- Distribution:
 - Occurs at altitudes of 920 – 1440 masl on hilly, undulating topography and broad valleys. It is located within a strong summer rainfall belt, with the majority of summer rain falling as the result of convection thunderstorms.
- Vegetation & Landscape Features:
 - Tall tussock grassland dominated by *Hyparrhenia hirta* with occasional scattered *Acacia sieberiana* woodland and small pockets of *A. karroo* and *A. nilotica*.
- Geology & Soils
 - Shallow sandy soils (Glenrosa and Mispah forms) developing over Ordovician Natal Group sandstones and compact, clayey soils on Dwyka diamictites (Karoo Supergroup) as well as on layered quartz-feldspar metasediments (Mapumulo Group, Mokolian) and granites of the Oribi Gorge Suite (also Mokolian). Land types mainly Fa and Fb with some Ca, Bd and Ac.
- Conservation
 - According to Jewitt (2018), this vegetation type is “least threatened”. Loss due to cultivation and transformation have resulted in current vegetation loss within the vegetation type. Infestation by alien invasive plants is also considered a threat to this vegetation type.
- Vegetation noted on site:
 - There will be the clearing 2.2 hectares of vegetation for the construction of the Estcourt Private Hospital.
 - Herb and forb presence and diversity appeared low. *Helichrysum* sp. were noted on site, as was *Watsonia pillansii*.
 - Indigenous woody vegetation is sparse. *Acacia sieberiana* and *A. nilotica* were present, predominantly as small to medium sized isolated trees.
 - *Pinus patula* was the only exotic plant species identified on site. Exotic invasion is very low. This is attributed to the burning observed during the October site visit and mowing/bailing noted during the review of recent aerial photography (Google Earth 2008 – 2019).
 - No evidence was found indicating past cultivation.

No sensitive habitats were identified within the property. Although the grassland habitat is largely intact, the site has been subjected to low intensity anthropogenic manipulations and impacts (e.g. road, stormwater channel, grazing & burning). The impact of the clearance of grassland on site is therefore considered to be low by the specialist⁸.

⁸ Section 6.2.3 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

- Fauna
 - With the exception of the south eastern corner, the entire site falls within an EKZN Wildlife earmarked “irreplaceable” zone (see Figure 14 in the Wetland & Vegetation Assessment attached under Appendix B).
 - The specialist noted that the EKZN Wildlife irreplaceable zones incorporate most of the undeveloped land in the vicinity of the proposed hospital site.
 - As described above, the grassland on site has been subjected to low level anthropogenic impacts associated with veld management and livestock farming.
 - The habitat that will be lost is located within a development node and of limited conservation potential⁹.

In the preferred layout alternative, the remaining 2 hectares of grassland in the western portion of the property will remain undeveloped. This provides an ecological link between the open space and grasslands to the north and south of the site, which has been identified by the specialist as having more opportunity for conservation and open space linkages. This will maintain a corridor for any existing fauna movement through the property as well as the maintenance of a grassland corridor for seed distribution. The specialist concluded that the significance of the terrestrial impact of the development is low¹⁰.

2.5 Heritage and Cultural Aspects

A Phase 1 Heritage Impact Assessment (HIA) was carried out to identify whether there are any important heritage sites / features and cultural features associated with the property (HIA attached under Appendix B). No heritage features or sites were noted on the property, which does not form part of any known cultural landscapes. The heritage specialist indicated that the site has a high rating for palaeo-sensitivity and therefore a Phase 2 Palaeontological Impact Assessment (PIA) was undertaken and is attached under Appendix B.

The proposed site lies on the dark grey shales of the Estcourt Formation (now called the Normandien Formation, late Permian, Beaufort Group). Since the latter could potentially contain fossil plant impressions of the Glossopteris flora, a site visit and survey were undertaken by the palaeontologists. The specialist noted that the proposed site is located on deep soils with no rocky outcrops or exposed shales. There were no fossil plants or vertebrates on the property. The conclusion of the palaeontologists was that the development would not impact upon the palaeontological record of South Africa.

2.6 Socio Economic Environment¹¹

The site is located in Estcourt which is the largest commercial node in the Midlands region. The site is strategically located and highly accessible on both a local and regional level. Estcourt is located in close proximity to the N3 national/ provincial corridor and R103 primary corridor and other tertiary corridors that if prioritised can serve as a tool for economic growth and help create functional linkages to Estcourt and the surrounding areas.

2.7 Surrounding Environment and Land Uses

The land uses surrounding the site are provided in Figure 5. The dominant land uses comprise of low-density residential developments, commercial and large open spaces with various education facilities including primary and secondary schools as well as churches and municipal facilities. There are a number of amenities in close proximity to the proposed development including filling stations and shopping malls. Estcourt District Hospital is located approximately 5.7km east of the site. Considering the surrounding land uses, Urban-Econ’s Market Research Report states that the proposed new private hospital will fit into the existing character of the area and therefore the development will have little negative impact or influence on the surrounding environment and existing land uses.

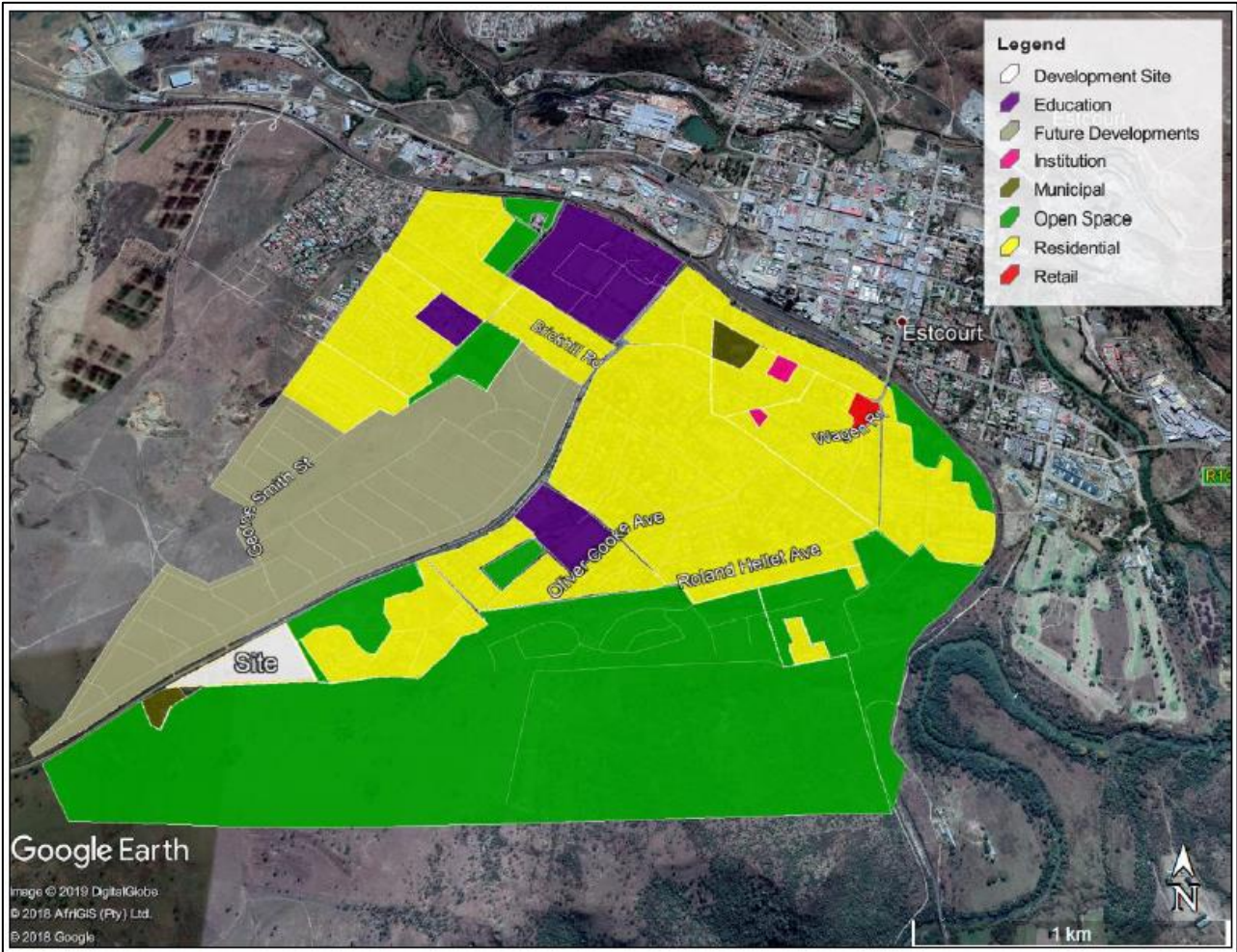
The Wagendrift Nature Reserve is located 2 km to the south of the proposed development. The Nature Reserve is associated with the Wagendrift Dam and is approximately 980 hectares in extent.

⁹ Section 6.2.3 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

¹⁰ Section 6.2.3 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

¹¹ Section 2.1 of the Urban-Econ Estcourt Private Hospital Market Research Report (2019) attached under Appendix B.

Figure 5: Land Uses Surrounding the Proposed Estcourt Private Hospital Site (Source: Urban-Econ, 2019).



The figures below provide photographs of the site taken on the 17th May 2019 and 01st August 2019.



Figure 6: (a): Photographer facing north looking towards Ntabamhlope Road. (b): Photographer showing the existing dirt track which traverses the property. (c): Photographer showing the degraded grassland within the development footprint that will be cleared.



Figure 7: (a): Photographer facing south towards the nearest drainage line. (b): Photograph taken in the centre of the site after a recent burn. (c): Illegal dumping is taking place in the eastern and western portions of the site where there is access onto the property.

Section 3: Policy and Legislative Context

3.1 Identification of All Legislation, Policies, Plans, Guidelines, Spatial Tools, Municipal Development Planning Frameworks And Instruments As Per Section 3(e) (i) And Compliance Of Proposed Activity With Legislation And Policy 3(e) (ii)

Legislation	Compliance of Activity
National Environmental Management Act 1998	<p>The National Environmental Management Act (Act 107 of 1998) (NEMA) is South Africa's overarching environmental legislation. It includes a set of principles that govern environmental management and against which all Environmental Management Programmes (EMPr) and actions are measured. These principles include and relate to sustainable development, protection of the natural environment, waste minimisation, public consultation, the right to an environment that is not harmful to one's health or wellbeing, and a general duty of care.</p> <p>The Environmental Impact Assessment (EIA) Regulations, 2014: GNR.982, R.983, and R.985 under Section 24 of the NEMA define the activities that require Environmental Authorisation and the processes to be followed to assess environmental impacts and obtain Environmental Authorisation.</p> <p>Environmental authorisation is required for the clearance of more than 1 hectare of indigenous vegetation and therefore this application is in line with the requirements of NEMA.</p>
National Water Act 1998	<p>The site is located within 500m of wetlands. Therefore, a water use authorisation will be required as per Section 21 (c) and (i) of the National Water Act. A pre-application meeting will be requested on the online EWULAA system.</p>
National Waste Management Act 2008	<p>Reforms the law regulating waste management to prevent pollution and ecological degradation.</p> <p>Section 19 allows the Minister to publish a list of activities, which require a Waste Management License. The most recent list is published in Government Gazette 37083 Notice No. 921 dated 29 November 2013. It is unlikely that any activities carried out by the development will trigger a Waste Management Activity.</p>
Environmental Conservation Act 1996	<p>Makes provisions for the application of general environmental principles for the protection of ecological processes, promotion of sustainable development and the protection of the environment. This Act has mostly been repealed by NEMA.</p>
National Environmental Management Biodiversity Act 2004	<p>To provide the framework, norms, and standards for the conservation, sustainable use and equitable benefit-sharing of South Africa's biological resources. Section 52 allows for the publication of a list of threatened ecosystems in need of protection. The list was published in Government Gazette No. 34809 Notice No. 1002, dated 9 November 2011.</p> <p>The site is not located within a threatened ecosystem.</p>
National Heritage Resources Act 25 of 1999	<p>For the protection of South African Heritage to nurture and conserve communities legacy. No archaeological significant artefacts will be disturbed during this project; therefore, no permits will be required from the provincial heritage authority, AMAFA.</p>
Municipal Planning Framework	
uThukela District Municipality Integrated Development Plan Review 2019/2020 (IDP)	<p>The lack of sufficient health services available in the uThukela District Municipality is noted in section 3.4.4.2 of the IDP. This development is in line with the district municipalities vision to provide jobs and skills which will generate income and demand to sustain economic growth.</p>
iNkosi Langalibalele Local Municipality Draft Integrated Development Plan Review 2019/2020 (IDP)	<p>Estcourt town has been identified in the IDP as a primary activity node, which is an area earmarked for high private and public investments, as these nodes offer the opportunity to locate a range of activities and mixed used developments. The improvement of medical facilities was identified as an opportunity in the SWOT analysis for local economic development (section 5.1.10 of the IDP).</p>

Section 4: Motivation, Need and Desirability

4.1 Need and Desirability as Per Section 3(F)

The development needs to be considered in context with the various spatial planning tools and policies applicable to the study area. The need and desirability of a project must consider the broader community's needs and interests as reflected in the municipal Integrated Development Plan (IDP), Spatial Development Framework (SDF) and growth in the economy¹². A Market Research Report was prepared by Urban-Econ to investigate the feasibility of the proposed private hospital. The report is attached under Appendix B. The need for and desirability of the project has been addressed throughout the EIA process. Table 2 provides a summary of the overall impact of the project, as recommended in the Need and Desirability Guidelines¹³.

Table 2: Summary of the Need and Desirability of the Proposed Estcourt Private Hospital.

“Securing ecological sustainable development and use of natural resources”	
<i>How will this development (and its separate elements/aspects) impact on the ecological integrity of the area?</i>	The impact on the ecological integrity of the area has been rated as low during both the construction and operational phases. The impacts are mainly due to the unavoidable clearance of indigenous grassland vegetation and the management of stormwater discharged into the downstream wetland system.
<i>How will this development disturb or enhance ecosystems and/or result in the loss or protection of biological diversity? What measures were explored to firstly avoid these negative impacts, and where these negative impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</i>	The proposal will result in the clearance of 2.2 hectares of indigenous vegetation. The positioning of the hospital on the property was investigated to ensure that as much open space could be retained to sustain ecological links. There are no sensitive habitats on the site with the vegetation specialist considering the grassland to be degraded with limited diversity due to veld management and anthropogenic impacts. The preferred layout alternative provides an ecological link between the open space and grasslands to the north and south of the site, which has been identified by the specialist as having more opportunity for conservation and open space linkages. For the objectives of the applicant to be achieved, the associated ecological impacts are unavoidable.
<i>How will this development pollute and/or degrade the biophysical environment? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</i>	Apart from temporary construction related impacts, the development will not pollute the environment. The clearance of vegetation is unavoidable to accommodate the development however, the preferred layout avoids the indirect impacts of the hospital on the biophysical environment, which is the retention of open space connectivity in the western portion of the site.
<i>What waste will be generated by this development? What measures were explored to firstly avoid waste, and where waste could not be avoided altogether, what measures were explored to minimise, reuse and/or recycle the waste? What measures have been explored to safely treat and/or dispose of unavoidable waste?</i>	General waste and a small amount of hazardous waste such as oil spills will be generated during construction. General and medical waste will be generated during operation. Please refer to section 6.2 which describes the management of waste to ensure safe disposal during construction and operation of the hospital. An EMPr has been provided to ensure waste is sufficiently managed on-site.
<i>How will this development disturb or enhance landscapes and/or sites that constitute the nation's cultural heritage? What measures were explored to firstly avoid these impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</i>	There are no negative or positive impacts on any cultural heritage sites.
<i>How will this development use and/or impact on non-renewable natural resources? What measures were explored to ensure responsible and equitable use of the resources? How have the consequences of the depletion of the non-renewable natural resources been considered? What measures were explored to firstly avoid these</i>	Apart from construction materials, there will be no other non-renewable natural resources will be used on site.

¹² DEA (2017) Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa.

¹³ DEA (2017) Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa.

<p>impacts, and where impacts could not be avoided altogether, what measures were explored to minimise and remedy (including offsetting) the impacts? What measures were explored to enhance positive impacts?</p>	
<p>How will this development use and/or impact on renewable natural resources and the ecosystem of which they are part? Will the use of the resources and/or impact on the ecosystem jeopardise the integrity of the resource and/or system taking into account carrying capacity restrictions, limits of acceptable change, and thresholds? What measures were explored to firstly avoid the use of resources, or if avoidance is not possible, to minimise the use of resources? What measures were taken to ensure responsible and equitable use of the resources? What measures were explored to enhance positive impacts?</p> <ul style="list-style-type: none"> • Does the proposed development exacerbate the increased dependency on increased use of resources to maintain economic growth or does it reduce resource dependency (i.e. de-materialised growth)? (note: sustainability requires that settlements reduce their ecological footprint by using less material and energy demands and reduce the amount of waste they generate, without compromising their quest to improve their quality of life) • Does the proposed use of natural resources constitute the best use thereof? Is the use justifiable when considering intra- and intergenerational equity, and are there more important priorities for which the resources should be used (i.e. what are the opportunity costs of using these resources this the proposed development alternative?) • Do the proposed location, type and scale of development promote a reduced dependency on resources. 	<p>The development is not expected to impact on any renewable natural resources on site. As per sections 3.3 & 3.4 of the Engineering Services Report attached under Appendix B, uThukela District Municipality has approved the bulk water and sewage connections (see letter attached to the Engineering Services Report under Appendix B). There is therefore sufficient capacity available to service this development.</p>
<p>How were a risk-averse and cautious approach applied in terms of ecological impacts?</p> <ul style="list-style-type: none"> • What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated) • What is the level of risk associated with the limits of current knowledge • Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development? 	<p>During the construction phase, the impact on the ecological integrity of the area has been rated as low. Using input from the specialist studies carried out, all operational impacts have also been rated as low, after mitigation. The greatest impact identified relates to the ecosystem disturbance during construction. Please note that the preferred layout has a reduced ecological impact in the long-term with the retention of an open space corridor in the western portion of the property. Please refer to section 6.6 which describes the assumptions, uncertainties and gaps in knowledge relating to the assessment.</p>
<p>How will the ecological impacts resulting from this development impact on people's environmental right in terms following</p> <ul style="list-style-type: none"> • Negative impacts: e.g. access to resources, opportunity costs, loss of amenity (e.g. open space), air and water quality impacts, nuisance (noise, odour, etc.), health impacts, visual impacts, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts? • Positive impacts: e.g. improved access to resources, improved amenity, improved air or water quality, etc. What measures were taken to enhance positive impacts? 	<p>The proposed development will not negatively impact on people's environmental right and will positively contribute on the surrounding community by providing access to health care facilities.</p>
<p>Describe the linkages and dependencies between human wellbeing, livelihoods and ecosystem services applicable to the area in question and how the development's ecological impacts will result in socio-economic impacts (e.g. on livelihoods, loss of heritage site, opportunity costs, etc.)?</p>	<p>The proposed development's ecological impact has been rated as low. The property is currently vacant and not in use. The only socio-economic impact associated with the proposed hospital is a positive one, which is the provision of health care facilities to the surrounding Estcourt community.</p>
<p>Based on all of the above, how will this development positively or negatively impact on ecological integrity objectives/ targets/ considerations of the area?</p>	<p>The development should have no significant negative impact on ecological integrity based on the understanding</p>

	that the applicant will construct and operated the hospital as per the conditions of the EMPr.
<i>Considering the need to secure ecological integrity and a healthy biophysical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the “best practicable environmental option” in terms of ecological considerations?</i>	Please refer to section 4.2 below for a motivation for the preferred site, activity and technology alternative.
<i>Describe the positive and negative cumulative ecological/biophysical impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and existing and other planned developments in the area?</i>	Section 6 provides a full impact assessment, including an increase in pressure on the municipal services for bulk water provision and sewage disposal. uThukela Municipality have however confirmed capacity and therefore the impact has been rated as low. No positive cumulative impacts on the environment have been identified.
“Promoting justifiable economic and social development”	
<i>What is the socio-economic context of the area, based on, amongst other considerations, the following considerations:</i> <ul style="list-style-type: none"> • <i>The IDP (and its sector plans’ vision, objectives, strategies, indicators and targets) and any other strategic plans, frameworks of policies applicable to the area,</i> • <i>Spatial priorities and desired spatial patterns (e.g. need for integrated of segregated communities, need to upgrade informal settlements, need for densification, etc.),</i> • <i>Spatial characteristics (e.g. existing land uses, planned land uses, cultural landscapes, etc.), and</i> • <i>Municipal Economic Development Strategy (“LED Strategy”).</i> 	<p>Please refer to section 2.7 describing the surrounding environment and land uses. Section 3.1 describes the development in the context of the uThukela District Municipality and iNkosi Langalibalele Local Municipality Integrated Development Plans.</p> <p>Quality health care facilities is one of the challenges facing South Africa mentioned in the 2030 National Development Plan. The iNkosi Langalibalele Local Municipality emphasises the demand for more health facilities in the IDP. Based on the 2011 population census, Estcourt is fast becoming a major settlement, with an average population growth rate of 2.2% in five years. The demand for medical services correlates to this increase in population growth¹⁴.</p>
<i>Considering the socio-economic context, what will the socio-economic impacts be of the development (and its separate elements/aspects), and specifically also on the socio-economic objectives of the area?</i>	The Urban-Econ Market Research Report confirms that the development will have a positive socio-economic impact. There is only one private hospital in the uThukela District Municipality. The iNkosi Langalibalele Local Municipality comprises of a total of 11 provincial clinics and 1 district hospital. There is no private hospital in the immediate vicinity and no future hospitals were noted within the primary market area suggesting that there may be an opportunity for a private healthcare facility ¹⁵ . A demand model for the proposed private hospital is presented in Table 20 of the Market Research Report. Based on the model, Urban-Econ confirm that there is a demand for a 112-bed hospital by 2024, which is projected to increase to 125 beds by 2029.
<i>How will this development address the specific physical, psychological, developmental, cultural and social needs and interests of the relevant communities?</i>	Figure 8 in the attached Market Research Report shows the primary and secondary market areas associated with the proposed development. The primary market is the Estcourt area and its surroundings. The secondary market comprises of other outlying areas from which people may want to travel to the new hospital. According to Urban-Econ, approximately 61% of the total primary market area’s population and approximately 59% of the secondary market area’s population contribute to the local economy and may consider getting medical aid or utilise private medical facilities. A mix of medical services is required to service both the young and older populations in both market areas. Given the high mortality and HIV infection rates, the need for these medical treatments for the local population is significant ¹⁶ .

¹⁴ Section 1.4.2 of the Urban-Econ Estcourt Private Hospital Market Research Report (2019) attached under Appendix B.

¹⁵ Section 6.1 of the Urban-Econ Estcourt Private Hospital Market Research Report (2019) attached under Appendix B.

¹⁶ Section 4.7.4 of the Urban-Econ Estcourt Private Hospital Market Research Report (2019) attached under Appendix B.

<p><i>Will the development result inequitable (intra- and inter-generational) impact distribution, in the short- and long-term?</i></p>	<p>As the proposed development is a private health care facility, it will benefit the public in general and will not result in inequitable (intra- and inter-generational) impact distribution.</p>
<p><i>Will the impact be socially and economically sustainable in the short- and long-term?</i></p>	<p>Yes, the development will be socially and economically sustainable as there have not been any significant negative socio-economic impacts identified. The hospital will have a positive long-term social impact on Estcourt town and the surrounds.</p>
<p><i>In terms of location, describe how the placement of the proposed development will:</i></p> <ul style="list-style-type: none"> • result in the creation of residential and employment opportunities in close proximity to or integrated with each other, • reduce the need for transport of people and goods, • result in access to public transport or enable non-motorised and pedestrian transport (e.g. will the development result in densification and the achievement of thresholds in terms public transport), • compliment other uses in the area, • be in line with the planning for the area, • for urban related development, make use of underutilised land available with the urban edge, • optimise the use of existing resources and infrastructure, • opportunity costs in terms of bulk infrastructure expansions in non-priority areas (e.g. not aligned with the bulk infrastructure planning for the settlement that reflects the spatial reconstruction priorities of the settlement), • discourage "urban sprawl" and contribute to compaction/densification, • contribute to the correction of the historically distorted spatial patterns of settlements and to the optimum use of existing infrastructure in excess of current needs, • encourage environmentally sustainable land development practices and processes, • take into account special locational factors that might favour the specific location (e.g. the location of a strategic mineral resource, access to the port, access to rail, etc.), • the investment in the settlement or area in question will generate the highest socio-economic returns (i.e. an area with high economic potential), • impact on the sense of history, sense of place and heritage of the area and the socio-cultural and • cultural-historic characteristics and sensitivities of the area, and • in terms of the nature, scale and location of the development promote or act as a catalyst to create a more integrated settlement? 	<p>The site is desirable as it is located in close proximity to the N3 highway and R103. Access to the proposed hospital will be directly off Ntabamhlophe Road, which is a main transport route accessible to public transport. This will benefit the proposed hospital in terms of ensuring shorter travelling times for employees. The site is also sufficiently served in terms of municipal services, making development of this property desirable. The site is well located in terms of the surrounding land uses (Figure 5). High and middle to high residential neighbourhoods are located towards the north east of the site. Further along Ntabamhlophe Road, towards Estcourt CBD are middle income residential neighbourhoods. According to Urban-Econ, approximately 61% of the total primary market area's population and approximately 59% of the secondary market area's population contribute to the local economy and may consider getting medical aid or utilise private medical facilities.</p>
<p><i>How were a risk-averse and cautious approach applied in terms of socio-economic impacts?:</i></p> <ul style="list-style-type: none"> • What are the limits of current knowledge (note: the gaps, uncertainties and assumptions must be clearly stated)? • What is the level of risk (note: related to inequality, social fabric, livelihoods, vulnerable communities, critical resources, economic vulnerability and sustainability) associated with the limits of current knowledge? • Based on the limits of knowledge and the level of risk, how and to what extent was a risk-averse and cautious approach applied to the development? 	<p>As the project is for the provision of health services to the private sector, there are no negative socio-economic risks associated with the proposed development. Therefore, a risk-averse and cautious approach was not required.</p>
<p><i>How will the socio-economic impacts resulting from this development impact on people's environmental right in terms following</i></p>	<p>The proposed development will not negatively impact on people's environmental rights. However, the development will have a positive impact, provision of private health care</p>

<ul style="list-style-type: none"> • <i>Negative impacts: e.g. health (e.g. HIV-Aids), safety, social ills, etc. What measures were taken to firstly avoid negative impacts, but if avoidance is not possible, to minimise, manage and remedy negative impacts?</i> • <i>Positive impacts. What measures were taken to enhance positive impacts?</i> 	<p>facilitates improving the standard of living for all in the primary and secondary market areas.</p>
<p><i>Considering the linkages and dependencies between human wellbeing, livelihoods and ecosystem services, describe the linkages and dependencies applicable to the area in question and how the development's socio-economic impacts will result in ecological impacts (e.g. over utilisation of natural resources, etc.)?</i></p>	<p>The proposed development's ecological impact has been rated as low. The property is currently vacant and not in use. The only socio-economic impact associated with the proposed hospital is a positive one, which is the provision of health care facilities to the surrounding Estcourt community.</p>
<p><i>What measures were taken to pursue the selection of the "best practicable environmental option" in terms of socio-economic considerations?</i></p>	<p>As the development is for the provision of private health care facilities, no other alternatives were considered from a socio-economic point of view. As recommended in the Market Research Report, due to the nature of the area in which the hospital will be located, a phased approach to the proposed 111 bed hospital should be undertaken by the applicant.</p>
<p><i>What measures were taken to pursue environmental justice so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons (who are the beneficiaries and is the development located appropriately)?</i></p>	<p>There have been no impacts associated with the proposed development which will adversely impact on vulnerable and/or disadvantaged persons.</p>
<p><i>Considering the need for social equity and justice, do the alternatives identified, allow the "best practicable environmental option" to be selected, or is there a need for other alternatives to be considered?</i></p>	<p>Yes, the best practicable environmental option is selected.</p>
<p><i>What measures were taken to pursue equitable access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing, and what special measures were taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination?</i></p>	<p>The development will not impact on anyone's access to environmental resources, benefits and services to meet basic human needs and ensure human wellbeing. It will, in fact, improve health services into the area.</p>
<p><i>What measures were taken to ensure that the responsibility for the environmental health and safety consequences of the development has been addressed throughout the development's life cycle?</i></p>	<p>The EMPr includes conditions which have been developed to manage construction, post construction and operational impacts. Upon receipt of the EA the EMPr will become legally binding. Therefore, the applicant will be bound the conditions of the EMPr throughout the life cycle of the hospital.</p>
<p><i>What measures were taken to:</i></p> <ul style="list-style-type: none"> • <i>ensure the participation of all interested and affected parties,</i> • <i>provide all people with an opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation,</i> • <i>ensure participation by vulnerable and disadvantaged persons,</i> • <i>promote community wellbeing and empowerment through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means,</i> • <i>ensure openness and transparency, and access to information in terms of the process,</i> • <i>ensure that the interests, needs and values of all interested and affected parties were taken into account, and that adequate recognition were given to all forms of knowledge, including traditional and ordinary knowledge</i> • <i>ensure that the vital role of women and youth in environmental management and development were recognised and their full participation therein were be promoted?</i> 	<p>Please refer to section 5 describing the public participation carried out for the project. Appendices C – G provides proof of the public participation process.</p>
<p><i>Considering the interests, needs and values of all the interested and affected parties, describe how the development will allow for opportunities for all the</i></p>	<p>The Urban-Econ Market Research Report assessed the geographic and socio-economic attributes of the market area to confirm that the proposed hospital is within the</p>

<p>segments of the community (e.g.. a mixture of low-, middle- and high-income housing opportunities) that is consistent with the priority needs of the local area (or that is proportional to the needs of an area)?</p>	<p>interests and need of the Estcourt area and surrounds. There is currently no private hospital in the immediate vicinity and no future hospitals were noted within the primary market area. The proposed hospital will have a positive impact on local economic growth during the operational phase, as it will create job opportunities for skilled, semi-skilled and unskilled labour.</p>
<p>What measures have been taken to ensure that current and/or future workers will be informed of work that potentially might be harmful to human health or the environment or of dangers associated with the work, and what measures have been taken to ensure that the right of workers to refuse such work will be respected and protected?</p>	<p>During construction, a full health, safety and environmental induction will be conducted on all employees. This induction brings to the attention of the employees all potential human health hazards and environmental dangers associated with the workings of the site. Inductions also indicate that all employees have a right to work in a clean and safe environment. During operation, there is unlikely to be any work that is harmful to human health or the environment.</p>
<p>Describe how the development will impact on job creation in terms of, amongst other aspects:</p> <ul style="list-style-type: none"> • the number of temporary versus permanent jobs that will be created, • whether the labour available in the area will be able to take up the job opportunities (i.e. do the required skills match the skills available in the area), • the distance from where labourers will have to travel, • the location of jobs opportunities versus the location of impacts (i.e. equitable distribution of costs and benefits), and • the opportunity costs in terms of job creation (e.g. a mine might create 100 jobs, but impact on 1000 agricultural jobs, etc.). 	<p>There will be the provision of temporary jobs during construction. The proposed hospital will have a positive impact on local economic growth during the operational phase, as it will create job opportunities for skilled, semi-skilled and unskilled labour. The hospital will be a significant tax payer and possibly open business opportunities for suppliers and may even have a positive knock on effect in terms of associated services.</p>
<p>What measures were taken to ensure:</p> <ul style="list-style-type: none"> • that there were intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, and • that actual or potential conflicts of interest between organs of state were resolved through conflict resolution procedures? 	<p>There is currently need for inter-governmental coordination associated with the project, which falls solely within the uThukela Municipality. The Basic Assessment Report will be circulated to all authorities and organs of state for comments and these comments included in the Appendix G. Should there be any conflict of interest, these will be resolved, however since the development will have a positive socio-economic impact, conflict of interest is unlikely.</p>
<p>What measures were taken to ensure that the environment will be held in public trust for the people, that the beneficial use of environmental resources will serve the public interest, and that the environment will be protected as the people's common heritage?</p>	<p>The proposed development is to take place on privately owned land and will therefore not negatively impact on people's common heritage with respect to the environment.</p>
<p>Are the mitigation measures proposed realistic and what long-term environmental legacy and managed burden will be left?</p>	<p>All of the mitigations proposed by the EAP and specialists are realistic and practical. There will be no long-term environmental legacy and burden to manage.</p>
<p>What measures were taken to ensure that the costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects will be paid for by those responsible for harming the environment?</p>	<p>The EMPr will designate responsibility for all conditions. This document will be legally binding and as such any non-compliances with the conditions of the EMPr will effectively be breaking the law, therefore, the applicant must prioritise these items.</p>
<p>Considering the need to secure ecological integrity and a healthy bio-physical environment, describe how the alternatives identified (in terms of all the different elements of the development and all the different impacts being proposed), resulted in the selection of the best practicable environmental option in terms of socio-economic considerations?</p>	<p>Please refer to section 4.2 below for a motivation for the preferred site, activity and technology alternative.</p>
<p>Describe the positive and negative cumulative socio-economic impacts bearing in mind the size, scale, scope and nature of the project in relation to its location and other planned developments in the area?</p>	<p>The proposed project will have a positive cumulative socio-economic impact, which is the provision of private health care facilities to the town of Estcourt and surrounds.</p>

4.2 Motivation for Preferred Site, Activity and Technology Alternative

4.2.1 Preferred Site Alternative

Alternative 1 (Preferred Alternative)

No additional site alternatives have been considered as the private hospital targets the nearby town of Estcourt, therefore there is only one preferred site alternative for the development. As described in the section above, the site is desirable from a market demand perspective and supported by the economists. To consider an alternative site is not reasonable from a financial perspective (e.g. property owned by the applicant and rezoning approved) and, regardless of the financial impact, will not result in avoiding / minimising negative impacts on the environment.

4.2.2 Preferred Layout Alternative

Alternative 1 (Preferred Alternative)

The preferred alternative is for the hospital to be developed in the eastern portion of the site. The total development footprint, including the future expansion, is 2.2 hectares. There is only one entrance off Ntabamhlope Road, with construction being restricted to the eastern portion of the property. The remaining 2 hectares in the western portion of the property will remain in its current state, linking the open space and grasslands to the north and south of the site, which has been identified by the specialist as having more opportunity for conservation and open space linkages as shown in Figure 8. There are several ecological benefits associated with the retention of open space linkages including increased hydrological connectivity, promotion of fauna movement and maintenance of a grassland corridor for seed distribution.

The nearest wetland is located 78m south of the site. Although no sensitive habitats were identified on the property and the grassland is described as having limited conservation potential¹⁷, the western portion of the property will remain undisturbed providing a link with the adjacent grassland and open space system to the north and south of the site. Layout Alternative 1 is therefore the preferred layout offering more opportunity for retention of ecological linkages with the surrounding environment. The benefits of maintaining these ecological linkages are provided under section 4.2 of this report.

The wetland systems and undeveloped land, located to the south of the property, have been identified by the specialist as having more opportunity for conservation and open space linkages at a town planning and urban planning level¹⁸.

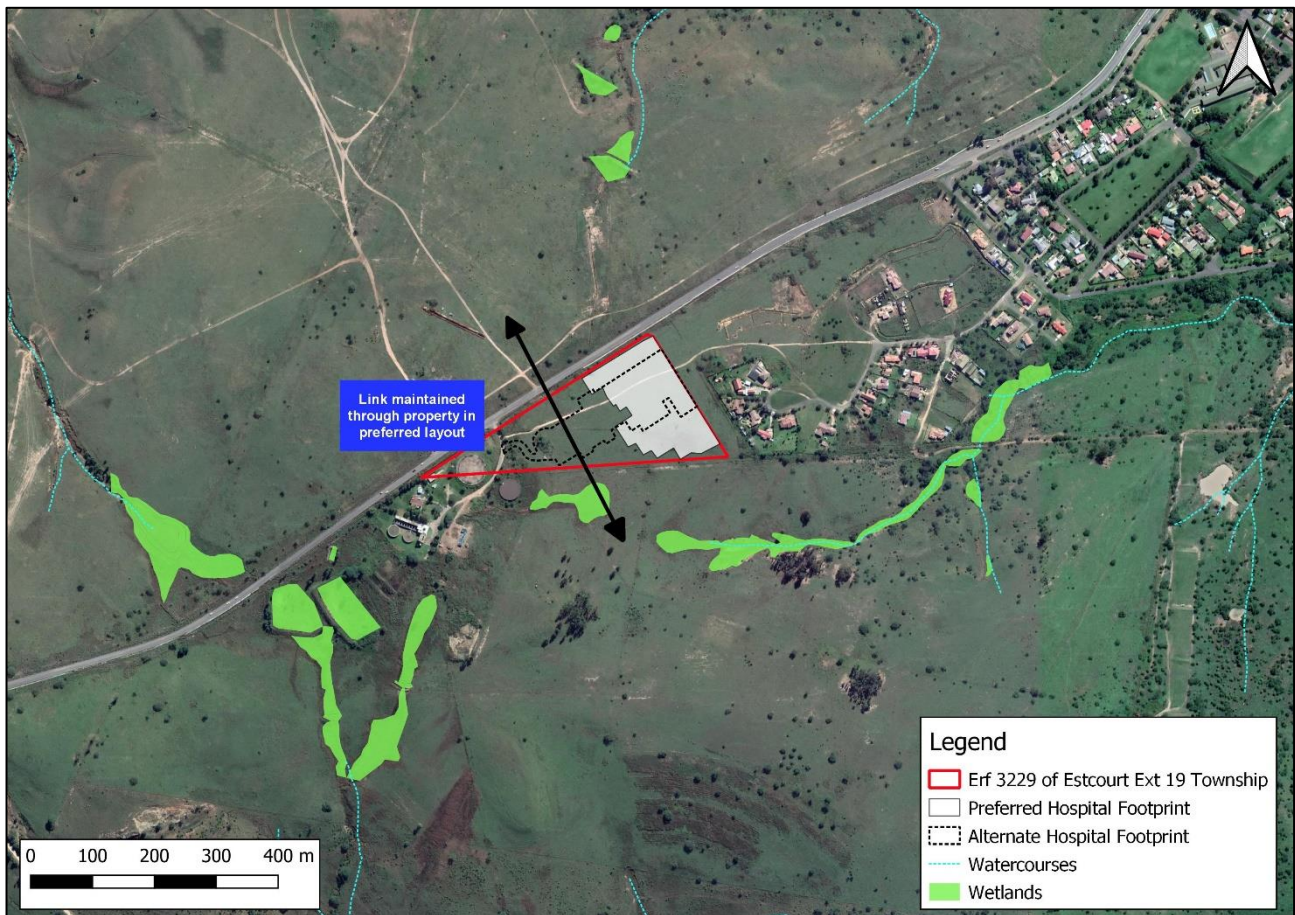
4.2.3 Preferred Technology Alternative

The preferred alternative for sewage disposal is for the development to tie into the existing municipal network. This will avoid the need for a conservancy tank, which is reliant on a service provider to pump the sewage from the tank. There is a higher risk of an underground tank leak or sewage spill during servicing associated with the conservancy tank option. The municipality have also confirmed there is available capacity at the municipal WWTWs. The municipality have lodged their application for a Water Use License with DWS, who have agreed that the Estcourt Private Hospital may connect to the municipal WWTWs while the WWTWs license is being processed.

¹⁷ Section 6.2.3 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

¹⁸ Section 5.2.2.2 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

Figure 8: Map Illustrating the Ecological Link Which is Retained in the Preferred Layout Alternative (source: QGIS Vs 2.3 With SDP Wetland Overlay, 2020).



Section 5: Public Participation

5.1 Notification of Interested and Affected Parties

- 1) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of-
 - i. the site where the activity to which the application or proposed application relates is or is to be undertaken; and
 - ii. any alternative site;

Noticeboards (isiZulu and English) were placed at the entrance to the property on the eastern and western portions on the 16th July 2019. The noticeboard detailed the applicant's proposal to develop a private hospital, subject to a basic assessment. See Appendix C – Proof of Placement of Notice Board.

- 2) giving written notice, in any of the manners provided for in section 47D of the Act, to-
 - i. the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
 - ii. the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
 - iii. the municipality which has jurisdiction in the area;
 - iv. any organ of state having jurisdiction in respect of any aspect of the activity, and;
 - v. any other party as required by the competent authority;

The following steps were followed during the public participation process.

- A notification register is provided in Appendix D which lists all I & Aps notified of the project.
- The Ward Councilor was notified by means of a telephonic conversation and a meeting was set up for the 16th July 2019. The Ward Councilor was unable to attend the meeting and therefore pamphlets

providing details of the project were left at the municipal offices, as directed by the Councilor. A copy of the Draft Basic Assessment Report will be delivered to the Councilor for comment.

- Adjacent landowners and occupiers were notified by hand on the 16th July 2019 or on the phone on the 19th July 2019.
- All authorities were notified by email on the 19th July 2019 and automatically registered to receive a copy of the Draft Basic Assessment Report.
- A noticeboard detailing the proposed development was erected on the site on the 16th July 2019.
- All Registered I & APs will be given opportunity to review complete copies of the Basic Assessment report and relay information back to the community.

See Appendix D – Proof of Notification.

- i. *owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;*

Please refer to the adjacent landowner map attached under Appendix D. Adjacent landowners and occupiers were notified by hand on the 16th July 2019 or on the phone on the 19th July 2019.

- 3) *placing an advertisement in-*
 - i. *one local newspaper; or*
 - ii. *any official Gazette that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;*
- 4) *placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or district municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official Gazette referred to in paragraph (c)(ii);*

An advert was placed in the Estcourt News newspaper on the 26th July 2019 detailing the proposed project, Basic Assessment and potential Water Use Licensing requirements. Contact details of EnviroPro were provided should anyone wish to register as an I&AP. See Appendix E – Proof of Advert Placement.

5.2 Registered Interested and Affected Parties

42. *A proponent or applicant must ensure the opening and maintenance of a register of interested and affected parties and submit such a register to the competent authority, which register must contain the names, contact details and addresses of-*
 - (a) *all persons who, as a consequence of the public participation process conducted in respect of that application, have submitted written comments or attended meetings with the proponent, applicant or EAP;*
 - (b) *all persons who have requested the proponent or applicant, in writing, for their names to be placed on the register; and*
 - (c) *all organs of state which have jurisdiction in respect of the activity to which the application relates.*

The contact details of all I & APs that have registered have been provided in the Registered I&AP list in Appendix F.

5.3 Comments

Comments of interested and affected parties to be recorded in reports and plans 44.

- 1) *The applicant must ensure that the comments of interested and affected parties are recorded in reports and plans and that such written comments, including responses to such comments and records of meetings, are attached to the reports and plans that are submitted to the competent authority in terms of these Regulations.*
- 2) *Where a person desires but is unable to access written comments as contemplated in subregulation (1) due to-*
 - i. *a lack of skills to read or write;*
 - ii. *disability; or*
 - iii. *any other disadvantage;*
 - iv. *reasonable alternative methods of recording comments must be provided for.*

All comments received from I & APs have been recorded in the comments and response table. The original comments provided have been provided together with the C&R table. This report has been provided to all Registered I & APs for comment. See Appendix G – Comments and Response table and Comments Received.

Section 6: Impact Assessment

6.1 Methodology to Determine and Rank Significance and Consequences of Impacts Associated With All Alternative as Per Section 3(h) (vi)

Impacts are assessed qualitatively and quantitatively, looking at the duration / frequency of the activity and likely impacts associated with that activity during both construction and operation. If the activity happens frequently, the risk of the associated impact occurring is much higher than if the activity happens less frequently. The geographical extent of the impact is assessed i.e. will the impact be restricted to the point of occurrence or will it have a local or regional effect. Impacts are also reviewed looking at severity levels and consequences should the impact occur i.e. will the severity be low, medium or high and then probability of the impact occurring is taken into account.

Whether or not the impact can be mitigated and the extent to which it can be avoided, managed, mitigated, or reversed is assessed i.e. the probability of occurrence after mitigation has been applied. This also takes into account likelihood of human error based on construction and operational auditing experience i.e. even though spills can be completely mitigated against and prevented, there is always a small chance that spills will still occur (residual risk). Based on all of these factors, the impact is then rated to determine its significance. For example an impact can have a regional affect with severe environmental implications, however the probability of it occurring is very low, and the implementation of the proposed mitigation measures means that the ultimate rating is medium or low.

Please see below a description of the scoring. The full impact scoring tables detailing how the significance rating was calculated can be found in Appendix H.

Scoring of Impacts	
Duration / Frequency of activity likely to cause impact	0 = No impact 1 = short term / once off 2 = medium term / during operation 3 = long term / permanent
Geographical Extent	0 = No impact 1 = point of impact / restricted to site 2 = local / surrounding area 3 = regional
Severity (level of damage caused) if impact were to occur	0 = No impact 1 = minor 3 = medium 5 = major
Probability of impact without mitigation	1 - 5 = low. 6 -10 = medium. 11 -14 = high.
Significance before application of Mitigation Measures	A score of between 1 and 5 is rated as low. A score of between 6 and 10 is rated as medium. A score of between 11 and 14 is rated as high.
Will activity cause irreplaceable loss of resources?	10 = Yes 0 = No
Mitigation measures	0 = No impact - 5 = can be fully mitigated - 3 = can be partially mitigated -1 = unable to be mitigated
Probability of impact after mitigation	0 = No impact 1 = Low 2 = Medium 3 = High
Significance after application of Mitigation Measures	A score of between 1 and 5 is rated as low. A score of between 6 and 10 is rated as medium. A score of between 11 and 14 is rated as high.

6.2 Preferred Site, Layout & Technology Alternative

Estcourt Private Hospital (Site specific)

See Appendix H for the full impacts scoring matrix, which assesses the impacts on the above system. The below impacts relate to the site-specific preferred site, layout and technology alternative (i.e. the use of a municipal sewerage connection).

No.	Nature and Consequences of impact	Sig. rating of impacts ¹⁹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
Construction				
Direct Impacts				
1.	<p>Activity: There will be clearing of up to 2.2 hectares of indigenous vegetation for the construction of the Estcourt Private Hospital.</p> <p>Impact: Loss of vegetation within the KwaZulu-Natal Highland Thornveld (Gs 6) vegetation type.</p>	7 (Medium)	<p>The following measures must be carried out to mitigate against excessive vegetation clearing on the site during construction:</p> <ul style="list-style-type: none"> This impact cannot be fully mitigated as there will be a loss of 2.2 hectares of indigenous vegetation found within the KwaZulu-Natal Highland Thornveld (Gs 6) vegetation type. The vegetation cleared must be restricted to the construction footprint of the hospital and associated parking areas, as per the preferred layout attached under Appendix A. The construction camp must be located within the authorised footprint of the hospital. Contractors must avoid damaging any vegetation that is not within the construction footprint. In this regard, the remainder of the property must be visibly cordoned off to prevent access into this grassland during construction. All staff on site must undergo environmental induction training with the independent Environmental Control Officer. Areas disturbed during construction must be revegetated in accordance with a suitable landscaping plan. The remaining grassland area is to be retained. 	5 (Low)
2.	<p>Activity: Disturbance of the site during the construction of the hospital</p> <p>Impact: Resulting in the encroachment of alien vegetation into disturbed areas i.e. Castor Oil.</p>	6 (Medium)	<p>There is currently alien vegetation located within the surrounding area.</p> <ul style="list-style-type: none"> Alien invasive plant management be implemented. An Alien Plant Control Plan is attached to the EMPr (Appendix J). Alien vegetation must not be allowed to encroach onto the site and must be continually removed during construction. 	1 (Low)

¹⁹ See Appendix H for more details.

No.	Nature and Consequences of impact	Sig. rating of impacts ¹⁹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
			<ul style="list-style-type: none"> Construction must not promote further alien plant disturbances in the surrounding area. 	
3.	<p>Activity: Clearing of site and creation of hard surfaces leading to increased stormwater run off</p> <p>Impact: Sedimentation of the downstream wetland system.</p>	6 (Medium)	<p>The nearest wetland is located 78m away from the development footprint creating a substantial buffer for stormwater to percolate naturally and evaporate. The following stormwater and erosion control measures are however required during construction to manage stormwater runoff:</p> <ul style="list-style-type: none"> Temporary stormwater protection measures must be established before construction activities commence. The long-term stormwater infrastructure required, described in the Stormwater Management Plan, attached under Appendix B, must be established early in the construction process. Any sign of erosion on site must be immediately rectified to prevent any significant wash away of soil into the adjacent grassland area. The Contractor must regularly check and clean material from behind erosion barriers. 	3 (Low)
4.	<p>Activity: Deep excavations during construction</p> <p>Impact Damage or loss of possible palaeontological resources.</p>	4 (Low)	<p>The site lies on Normandien Formation which could potentially preserve fossils of the <i>Glossopteris</i> flora. Based on the nature of the project, the development is unlikely to impact upon the fossil heritage, even if preserved well below the land surface in the development footprint. No mitigation measures were therefore prescribed by the palaeontologist specialist.</p>	0 (no impact)
Indirect Impacts				
1.	<p>Activity: Creation of temporary employment for the local community during construction</p> <p>Impact: Positive impact on local community and local economy</p>	0 (Positive)	This is a positive impact.	0 (Positive)
2.	<p>Activity: Clearing of indigenous vegetation for the construction of the Estcourt Private Hospital.</p> <p>Impact: Loss of grassland habitat for fauna currently utilising the site impacting on local biodiversity and ecosystem services provided by the site.</p>	5 (Low)	<p>This impact cannot be completely avoided as there will be a loss of 2.2 hectares of indigenous vegetation from within a Critical Biodiversity Area identified by Ezemvelo KZN Wildlife. Despite the majority of the site falling within an EKZN Wildlife earmarked "irreplaceable" zone, the grassland habitat has been subjected to low level anthropogenic impacts associated with veld management and livestock farming. The following measures are in place to reduce the impact on any species that may still utilise the property (i.e.</p>	1 (Low)

No.	Nature and Consequences of impact	Sig. rating of impacts ¹⁹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
			<p>retain local biodiversity) as well as maintaining the ecosystem services currently provided by the grassland and open space:</p> <ul style="list-style-type: none"> • The remaining 2 hectares of grassland in the western portion of the property must remain undeveloped. • This area of the property must be visibly cordoned off to prevent access into this grassland during construction. • The construction camp must be located within the authorised footprint of the hospital. • All staff on site must undergo environmental induction training with the independent Environmental Control Officer. 	
3.	<p>Activity: Construction activities associated with the Estcourt Private Hospital.</p> <p>Impact: Negative visual, hydrological and ecological impacts on the Wagendrift Nature Reserve.</p>	5 (Low)	<p>The Wagendrift Nature Reserve is located 2km south of the proposed development, on the other side of N3. The Nature Reserve is also upstream of the hospital and therefore the proposed development will not impact on the protected area.</p>	0 (no impact)
Operation				
Direct Impacts				
1.	<p>Activity: Creation of hardened surfaces leading to increased post development run off.</p> <p>Impact: Resulting in sedimentation of the downstream wetland system.</p>	8 (Medium)	<p>Stormwater from the attenuation structure in the south eastern corner will be released and allowed to flow into the southern wetland system (HGM units 2 & 3). The following is therefore required, as per the attached Engineering Services Report:</p> <ul style="list-style-type: none"> • Stormwater from the hospital must be collected in the kerbed parking areas and surface channels. • The stormwater attenuation system must be designed to release flow at near natural flow volumes and velocities. • Stormwater must be diverted through an attenuation process, before discharging it in a controlled manner into the downstream natural drainage systems. The construction of open attenuation ponds may be used as water features combined as a focal point in the landscaping plan (see Stormwater Management Plan layout under Appendix B). • Appropriate erosion control measures must be constructed at the various stormwater discharge points located throughout the site to limit erosion on the receiving environment e.g. at headwalls and culverts. 	4 (Low)

No.	Nature and Consequences of impact	Sig. rating of impacts ¹⁹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
			<ul style="list-style-type: none"> • The capacity of municipal infrastructure should be assessed during the detail design stage to ensure it is sufficient to handle the increase in stormwater from the hospital site. • The stormwater system must be kept separate from the sewage system. <p>The wetland specialist confirmed that the volume of additional water that will ultimately enter the wetland system is unlikely to be significant relative to the natural runoff volumes. The resultant impacts on the wetland area are expected to be minimal and of low significance.</p>	
2.	<p>Activity: Everyday operation of the Estcourt Private Hospital.</p> <p>Impact: Increase in traffic on the road network disrupting existing traffic conditions.</p>	6 (Medium)	<p>A Traffic Impact Assessment was conducted by AG Traffic and Transportation Consultants and is attached under Appendix B. There are no capacity road or external intersection upgrades required however the recommendations of the traffic specialists are as follows:</p> <ul style="list-style-type: none"> • The development must be served by one ingress/egress point. • Access to the site will be taken directly off the Ntabamhlophe Road. This access point will have one ingress lane and two egress lanes. • Vegetation cleared to accommodate the new road must be maintained so it does not grow again. This will ensure that sight distance, at any point, is not compromised as this will have a negative road safety effect should sufficient sight distance be not available. • A minimum of 72 parking bays must be provided. • A taxi drop off area, as proposed in the layout attached under Appendix A, must be constructed as part of the facility. 	2 (Low)
Indirect Impacts				
1.	<p>Activity: Creation of a private health care facility servicing Estcourt and surrounding areas.</p> <p>Impact: Positive impact on access to health care for local community.</p>	0 (Positive)	This is a positive impact.	0 (Positive)
2.	Activity: Generation of hazardous medical waste during the operation of the hospital.	9 (Medium)	<ul style="list-style-type: none"> • A banded waste storage area for domestic waste will be constructed on the property. 	5 (Low)

No.	Nature and Consequences of impact	Sig. rating of impacts ¹⁹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
	Impact: Improper storage of hazardous medical waste leading to health impacts and risk to environment on site. Improper / illegal disposal leading to contamination of off-site disposal areas and risk to affected local communities.		<ul style="list-style-type: none"> • A separate waste storage area should be constructed inside the health care facility for non-domestic waste, such as medical waste. • The storage area must be clearly marked with the international infectious substance symbol. • Medical waste must be removed by licensed service providers and taken for disposal, as required by law. • Only recognised and registered medical waste companies may be used for waste disposal and treatment. • A record of the type and volumes of medical waste generated must be kept on site. • Safe disposal certificates must be kept on file to confirm that waste has been disposed of at an appropriate and licenced medical waste facility i.e. safe disposal certificates to indicate type and volume of waste disposed and method / location of disposal. 	
3.	Activity: Retention of open space connectivity in the western portion of the site. Impact: Ecological link maintained between the open space and grassland to the north and south of the property.	0	This has a positive impact on the local biodiversity.	0
Cumulative				
1.	Activity: Hospital will make use of municipal services i.e. water and electricity supply and sewage disposal. Impact: Increased pressure on the municipal services for bulk water provision and sewage disposal.	8 (Medium)	uMsunguli Project Management prepared the Engineering Services Report attached under Appendix B. As per sections 3.3 & 3.4, uThukela District Municipality has approved the bulk water connection and that the hospital may connect into the existing sewer network. There is therefore sufficient capacity available to service this development.	4 (Low)

Estcourt Private Hospital (Standard Construction Impacts)

See Appendix H for the full impacts scoring matrix, which assesses the impacts on the above system. The below impacts relate to the preferred site and layout alternative – Generic Impacts.

No.	Nature and Consequences of impact	Sig. rating of impacts ²⁰ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
Construction				
Direct Impacts				
No generic direct impacts				
Indirect Impacts				

²⁰ See Appendix H for more details.

No.	Nature and Consequences of impact	Sig. rating of impacts ²⁰ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
1.	<p>Activity: Movement of construction vehicles across exposed soil</p> <p>Impact: Dusty conditions</p>	6 (Medium)	<p>There will be increased dust generated during the construction phase; however, this will be on a temporary basis i.e. the site will be worked continuously for a few months until construction is completed. Further to this:</p> <ul style="list-style-type: none"> • Vehicle speed limits must be reduced to 40km/hr to reduce the amount of dust raised along the gravel roads to and from the site. • The material being transported to the site in the back of the trucks must be covered. • Water carts must be used on site should dust levels elevate to a nuisance level. • Shade cloth is must be utilised for stockpiled materials where required. • The applicant must comply with the National Dust Regulations (Government Notice R827, 2013) with regards to dust levels produced on site. 	2 (Low)
2.	<p>Activity: Construction vehicles travel to the site for construction activities.</p> <p>Impact: Increase in heavy truck traffic along Ntabamhlope Road as impacting existing traffic conditions and pedestrians.</p>	5 (Low)	<p>This cannot be avoided as traffic will increase during the construction phase temporarily (for a few months) until construction is completed.</p> <ul style="list-style-type: none"> • All drivers associated with the construction must operate within the speed limits and due caution must be exercised especially when pedestrians are on the road. • All drivers must be appropriately licenced and trained. • Traffic warning signs to be erected along Ntabamhlope Road. 	3 (Low)
3.	<p>Aspect: Unidentified services</p> <p>Impact; damage to services during construction as a result of them not having been identified.</p>	6 (Medium)	<p>No services identified on the site that will be impacted on:</p> <ul style="list-style-type: none"> • As a standard construction practice the engineer and contractor must identify any potential existing services that may be affected prior to construction. • Any infrastructure that is removed must be replaced and any damage caused from construction must be repaired. 	2 (Low)
4.	<p>Aspect: Construction vehicle operating on site</p> <p>Impact: Emissions from construction vehicles.</p>	5 (Low)	<p>The construction phase of the project will see the increase in vehicles moving through the area which will result in the increase of emissions into the atmosphere.</p>	1 (Low)

No.	Nature and Consequences of impact	Sig. rating of impacts ²⁰ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
			<ul style="list-style-type: none"> All construction vehicles operating on the site must be fitted with the appropriate silencers and exhausts in order to reduce the emissions and noise into the atmosphere. 	
5.	<p>Aspect: Construction process associated with the construction of the Estcourt Private Hospital.</p> <p>Impact: Temporary increase in waste and litter requiring disposal.</p>	6 (Medium)	<p>The construction phase of the project will see an increase in construction staff on site and therefore an increase in waste on site.</p> <ul style="list-style-type: none"> Littering will not be permitted on site; Designated waste storage areas with appropriate waste receptacles must be set up within the construction site camp; Waste must be removed from site and disposed of at a registered waste disposal site; Safe disposal slips for the disposal of all waste must be obtained and kept on site as proof of safe disposal. 	2 (Low)
6.	<p>Aspect: sanitation for workers during construction</p> <p>Impact: Insufficient number of toilet facilities on site leading to staff using the surrounding environment for ablutions and leading to unsanitary and unsafe working conditions.</p>	5 (Low)	<p>The increase in construction personnel during the construction phase will require an appropriate number of toilet facilities for the site.</p> <ul style="list-style-type: none"> Appropriate and sufficient toilet facilities (1 toilet per 15 employees) must be provided by the contractor; All toilet facilities must be checked on a daily basis; All toilet facilities must be emptied and cleaned on a weekly basis. 	1 (Low)
7.	<p>Aspect: Toilet waste generated from toilet facilities on site.</p> <p>Impact: Inappropriate disposal of toilet waste resulting in the contamination of the environment.</p>	6 (Medium)	<p>The following mitigation measures must be adhered to:</p> <ul style="list-style-type: none"> All toilet facilities on site utilised by the construction personnel must be checked on a daily basis and emptied on a weekly basis by the contractor. A registered waste removal contractor must remove sewage waste from site or sewage waste must be disposed of at a permitted Waste Water Treatment Site; Safe disposal slips for the disposal of effluent waste must be obtained and kept on site as proof of safe disposal. 	2 (Low)
8.	<p>Aspect: Operation of construction machinery.</p> <p>Impact: Generation of noise associated with the construction.</p>	5 (Low)	<p>The construction phase of the project will see the increase in vehicles moving through the area which will result in the increase of noise.</p> <ul style="list-style-type: none"> All construction vehicles operating on site must be 	1 (Low)

No.	Nature and Consequences of impact	Sig. rating of impacts ²⁰ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
			fitted with standard silencers to reduce the noise levels produced. <ul style="list-style-type: none"> A Complaints Register must be available on site and any complaints dealt with timeously. 	
9.	Aspect: Sourcing of raw materials such as gravel, sand, water etc. Impact: Unsustainable sourcing of raw materials which could result in the promotion of illegal mining operations which can cause significant damage to the environment.	6 (Medium)	The construction of the bridges will require raw materials to be sourced and brought to site. <ul style="list-style-type: none"> Contractors must provide proof of sustainable sourcing of materials i.e. permits for quarries and sand winning operations from which stone and sand have been obtained. 	2 (Low)
Operation				
Direct Impacts				
No generic direct impacts.				
Indirect Impacts				
1.	Aspect: Local employment Impact: Positive impacts due to potential for local employment.	0 (Positive)	This is a positive impact.	0 (Positive)
Cumulative				
No generic cumulative impacts.				

6.3 Alternative Layout & Technology Alternative *Estcourt Private Hospital (Site specific)*

See Appendix H for the full impacts scoring matrix, which assesses the impacts on the above system. The impacts relating to the preferred Layout Alternative 1 and the alternative Layout 2 are very similar, therefore the impacts below include the impacts which differentiate the most between the two alternatives. The table below assesses the alternate method for sewage disposal (i.e. the use of a conservancy tank as a short-term solution to sewage disposal if required).

No.	Nature and Consequences of impact	Sig. rating of impacts ²¹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
Construction				
Direct Impacts				
1.	Activity: There will be clearing of up to 2.1 hectares of indigenous vegetation for the construction of the Estcourt Private Hospital. Impact: Loss of vegetation within the KwaZulu-Natal Highland Thornveld (Gs 6) vegetation type.	7 (Medium)	The mitigation measures remain the same as those provided for Alternative 1.	5 (Low)
2.	Activity: Clearing of site and creation of hard surfaces leading to increased stormwater run off Impact: Sedimentation of the downstream wetland system.	7 (Medium)	The mitigation measures remain the same as those provided for Alternative 1 however the nearest wetland system is located 46m away from the development footprint (22m closer than the preferred layout alternative). Although still a substantial distance from the construction footprint, the risk of sedimentation of the downstream wetland is marginally higher.	3 (Low)
Indirect Impacts				

²¹ See Appendix H for more details.

No.	Nature and Consequences of impact	Sig. rating of impacts ²¹ :	Proposed mitigation and Extent to which impact can be reversed / avoided, managed or mitigated:	Sig. rating of impacts after mitigation:
1.	Activity: Clearing of indigenous vegetation for the construction of the Estcourt Private Hospital. Impact: Loss of grassland habitat for fauna currently utilising the site.	6 (Medium)	The mitigation measures remain the same as those provided for Alternative 1 however the impact on fauna is greater as the layout alternative does not offer the same opportunity for open space to be maintained in the western portion of the property.	4 (Low)
Operation				
Direct Impacts				
Direct operational impacts remain as per Alternative 1				
Indirect Impacts				
1.	Activity: Retention of open space connectivity in the western portion of the site. Impact: Ecological link maintained between the open space and grassland to the north and south of the property.	9 (Medium)	The construction of the service road and the alignment of the hospital across the site does not offer the opportunity for an ecological link to be maintained between the grassland to the north and south of the site. This impact is therefore greater than the preferred Alternative 1.	9 (Medium)
Cumulative				
1.	Activity: Use of a conservancy tank to dispose of sewage. Impact: Potential for contamination of surrounding environmental and groundwater should the conservancy tank not be managed efficiently or if there is a leak.	8 (Medium)	The uThukela District Municipality have confirmed capacity at the municipal waste water treatment works, however this WWTWs is not yet licensed by the Department of Water & Sanitation. Since the release of the Draft BAR, DWS have confirmed that the development may connect to the WWTWs while the WWTWs is being licensed. A conservancy tank is therefore no longer required and does not need to be assessed further.	4 (Low)

Estcourt Private Hospital (Standard Construction Impacts)

Generic impacts for the Estcourt Private Hospital will be the same for both layout and technology alternatives.

6.4 Environmental Impact Statement as per section (I)

The key impacts associated with the Estcourt Private Hospital relate to those during the construction period. The clearance of 2.2 hectares of indigenous grassland is unavoidable however, the grassland has been subjected to low level anthropogenic impacts associated with veld management and livestock farming. Furthermore, the habitat that will be lost is located within a development node and is of limited conservation potential. As such, the significance of the resultant impact is low²². All construction activity must however be confined to the proposed construction footprint area and the remaining grassland in the western portion of the site must remain intact as open space.

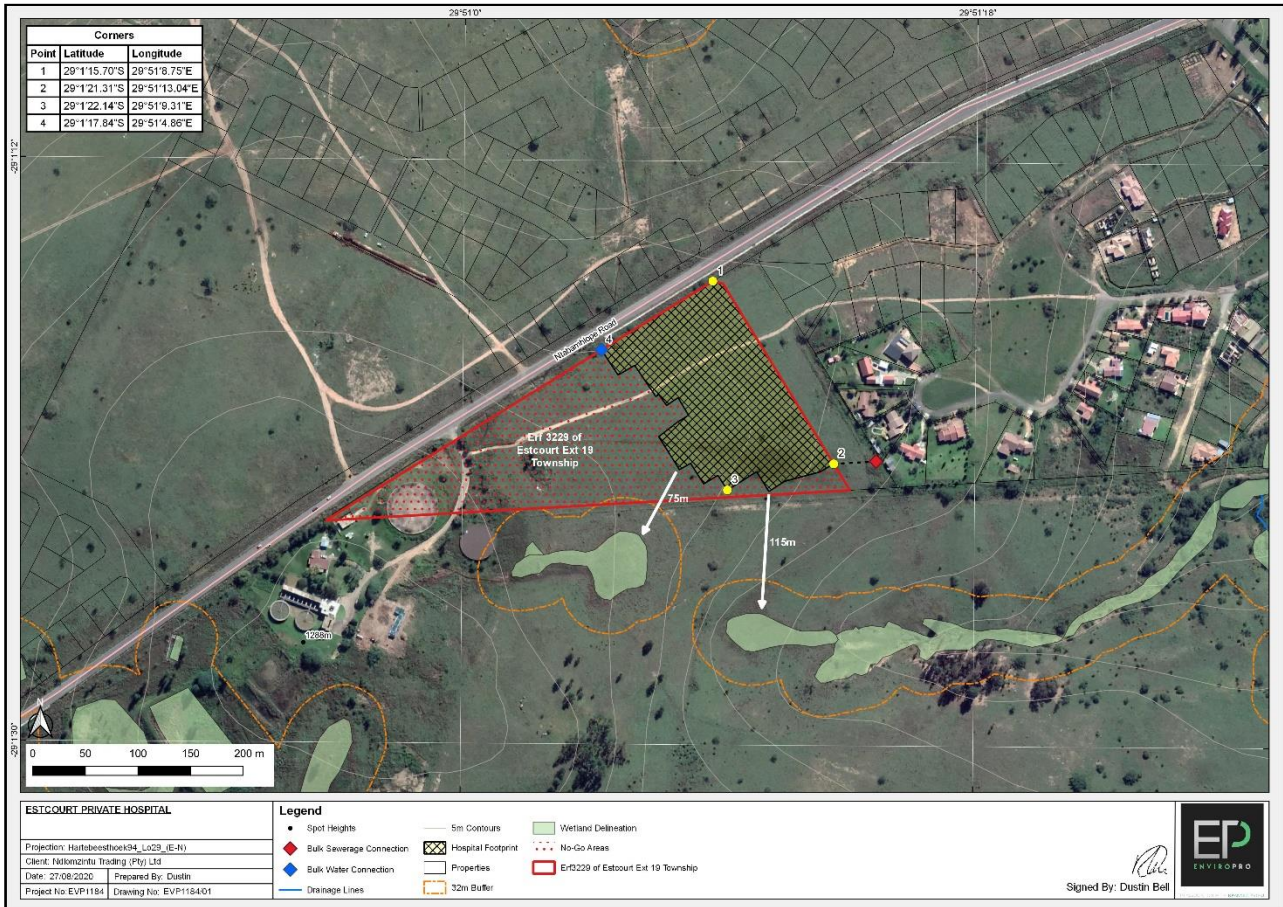
Considering the distance from the nearest watercourse, the wetland specialist has rated any potential impacts on the wetland system to be low. The formal stormwater management system must be implemented early in the construction process to ensure stormwater runoff is contained on site and does not result in sedimentation of the downstream wetland system.

Generic good practise construction mitigation measures have been provided in the EMP, which must be adhered to by the Contractor and the site audited against by an independent Environmental Control Officer (ECO). This will ensure that the impact during construction does not extend beyond the property boundaries. Once construction is complete there should be no significant impacts related to the operation of the hospital as depicted in Figure 9 below.

²² Section 6.2.3 of the SDP Wetland & Vegetation Assessment (2020) attached under Appendix B.

A number of positive socio-economic impacts have been identified for the Estcourt Private Hospital, which is well supported from a market demand perspective. Taking into consideration the above impacts and mitigation measures, it is the EAP's opinion that the construction of Estcourt Private Hospital be authorised.

Figure 9: Aerial photograph showing the preferred layout for the Estcourt Private Hospital (source: QGIS vs 2.3 with SDP wetland overlay, 2020).



6.5 Impact Management Objectives and Outcomes for the Development for Inclusion in the EMP as Per Section 3(m)

The following objectives and outcomes must be considered for this project:

- Objectives:
 - For there to be no lasting negative impacts on the environment once construction is complete, specifically on the downstream wetland system.
 - To practice responsible construction, 'best practice' with regards to housekeeping on site during construction (outlined within the EMP) and enforce the polluter pays principle. The applicant / contractor must be responsible for their actions on site during construction and the rehabilitation of the site post construction.
- Outcomes:
 - Specific impact management outcomes are provided above the impact management actions in sections 2, 3 & 4 of the attached EMP however the overall management outcome for the Estcourt Private Hospital is to promote a sustainable development. Infrastructure to be constructed in the eastern portion of the site with the remainder of the grassland being retained.

6.6 Assumptions, Uncertainties and Gaps in Knowledge Relating To the Assessment and Mitigation Measures Proposed As Per Section 3(o)

The information in this report has been extracted from the various specialist reports attached under Appendix B. The assessment is also based on the assumption that the input received from the engineers, architect and applicant is accurate.

6.7 Period for Which Authorization Is Required, Proposed Monitoring and Auditing and Post Construction Requirement's

Environmental authorisation is required for the construction of the Estcourt Private Hospital within the next 5 years. Considering the current economic climate, it is recommended that the authorisation be valid for a period of ten years, within which time construction would need to commence.

Given the nature of this project and the low impact associated with the construction, it is recommended that **bi-monthly** ECO audits be carried out for the duration of the construction phase of this project (i.e. once every two months). One post construction audit should be conducted once construction is complete.

The EMPr details the post construction and rehabilitation requirements which will be monitored by the ECO and compliance authorities.

6.8 Financial Provisions as Per Section 3(s)

The contractor is responsible for and must ensure that the site has been rehabilitated in full before leaving the site. No upfront financial provision is required for this project.

6.9 EAP Opinion on Whether Or Not to Authorize Activity and Recommendations and Conditions for Authorisation as Per Section 3(n) and (p)

With respect to the site and layout alternatives, it is recommended that preferred Layout Alternatives 1 be authorised. **The preferred technology alternative is for the development to tie into municipal reticulation. A conservancy tank is not required in the short term.** The significance of the impacts associated with the construction of the hospital is considered 'low' after mitigation.

6.10 Summary of Recommendations for the construction of the Estcourt Private Hospital: Stakeholders, Properties & Services

- As standard construction practices the engineer and contractor should identify all existing services that may be affected prior to construction.

Traffic & Construction Pedestrians

- The contractor must take into consideration the potential movements of surrounding stakeholders.
- Appropriate signage and barriers must be used to cordon off construction areas.
- All construction vehicles should be fitted with the appropriate silencers and exhausts.
- Speed limits must be obeyed.

Housekeeping, waste management, storage, and materials handling

- Littering must not be permitted on site.
- All hazardous materials and substances should be stored within a secured area in the construction camp. The storage area should be a hard surfaced, bunded, and covered area.
- Cement mixing must be done on a hard surface that is protected from storm water runoff.
- Contractors should be required to dispose of construction rubble at an appropriate landfill site. Delivery notes and safe disposal certificates to prove appropriate disposal should be available.
- Appropriate and sufficient toilet facilities must be provided by the contractor.
- Toilet facilities must be provided by a registered company and all sewage must be disposed of at an appropriate facility. Safe disposal certificates must be kept on record.

Dust and erosion control

- A water cart should be used to dampen dusty surfaces and suppress dust.
- Exposed areas should be rehabilitated and re-vegetated as soon as possible during construction.
- Areas exposed to erosion must be protected through the use of sand bags, berms and efficient construction processes i.e.: limiting the extent (footprint) and duration period that areas are exposed. The contractor must ensure that any blockages created during construction are resolved.

Stormwater management and protection of the watercourse

- Temporary stormwater protection measures must be established before construction activities commence.
- The engineer/contractor must ensure that only clean storm water runoff enters the surrounding environment. Any contaminated run off must be collected and disposed of.
- The stormwater attenuation system must be designed to release flow at near natural flow volumes and velocities to ensure the controlled release of stormwater into the downstream wetlands.

Protection of Heritage Resources

- Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

Specific conditions

- Contractors must avoid damaging any vegetation that is not within the construction footprint. In this regard, the remainder of the property must be visibly cordoned off to prevent access into this grassland during construction.
- The remaining grassland area is to be retained.
- Medical waste must be removed by licensed service providers and taken for disposal, as required by law.
- A record of the companies collecting and disposing of the medical waste must be retained on site as proof of safe disposal.

Appendix A: Drawings and Maps

Appendix B: Specialist Reports

No.	Specialist Report
1	DEFF Screening Tool Report
2	Heritage Impact Assessment
3	Palaeontological Impact Assessment
4	Wetland & Vegetation Assessment
5	Geotechnical Report
6	Engineering Services Report
7	Stormwater Management Plan
8	Market Research Report
9	Traffic Impact Assessment

Appendix C: Noticeboard

Appendix D: Notification

Appendix E: Advert

Appendix F: Registered I & APs

Appendix G: Comments and Responses

Appendix H: Impacts Scoring Matrix

Appendix I: EAP Declaration

Appendix J: Environmental Management Programme