THE PROPOSED UPGRADING OF APPROXIMATLEY 20KM OF DISTRICT ROAD DR08035 FROM THE INTERSECTION WITH THE N2 TO THE INTERSECTION WITH THE R61, CLARKEBURY, EASTERN CAPE.

FINAL BASIC ASSESSMENT REPORT

DEDEAT REF: EC121&EC137/HO/LN1&3/M/-2-2019

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FEBRUARY 2020

BASIC ASSESSMENT REPORT

(For official use only)

File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998(Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner (EAP).
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section? If YES, please complete form XX for each specialist thus appointed:	**YES**	~~NO~~

Any specialist reports must be contained in **Appendix D**.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

1. Introduction

1.1 Project Location and Description

The Eastern Cape Department of Transport (ECDT) proposes to upgrade portions of the gravel district roads DR08034 and DR08035 to a tarred surface, and has been divided into three (3) distinct phases:

- Phase 1 is from the N2 Intersect the DR08034 to start of DR08035;
- Phase 2 is from start of DR08035 and ends where the R61 intersect with DR08034;
- Phase 3 (this application) is from the start of DR08035 or (Intersection of DR08034 with DR08035) for approximately 20km.

The application only concerns Phase 3 - the upgrade a 20 km section of the DR08035 road from Clarkebury to the Mjanyana Hospital in the Eastern Cape (Figure 1.1). This will include the upgrade of bridges (Bridges 1 and 2 in Figure 1.1 below) and culverts along the road. The aim of the road upgrade is to provide easy access to the hospital for villagers along the route of DR08035 from Clarkebury and surrounding areas.

The project falls within the Chris Hani District Municipality (CHDM) and the Amathole District Municipality (ADM), and within two local municipalities; the Mbashe Local Municipality and the Engcobo Local Municipality. The project includes the use of various mining sites associated with the road upgrade but these sites are being assessed through a separate Environmental Impact Assessment (EIA) for submission to the Department of Mineral Resources (DMR).

The affected road portion is approximately 20 km long and 6-7 m wide and will be upgraded from gravel to black top surface standards. The road upgrading activities will take the form of minimum mass earthworks for the improvement of existing vertical and horizontal alignments where necessary, additional pavement layers and seals. The upgrading action, in addition to the construction of the road pavement structure, will also include the installation of surface and subsurface drainage, traffic calming facilities, etc.

The road upgrade will cross two major watercourses (Figure 1.1) and several smaller drainage channels (Figure 1.2). This will include the upgrade of existing smaller bridges and culverts, and the construction of two new bridges along the road (refer to Figures 1.3 and 1.4 below). The decommissioning of the existing bridges will be dependent on the age of the structures (possible heritage features) and on the conditions of the Water Use License (currently under application). The existing bridges do not meet the 1:100-year floodline safety requirements, and therefore, two new bridges have been proposed.

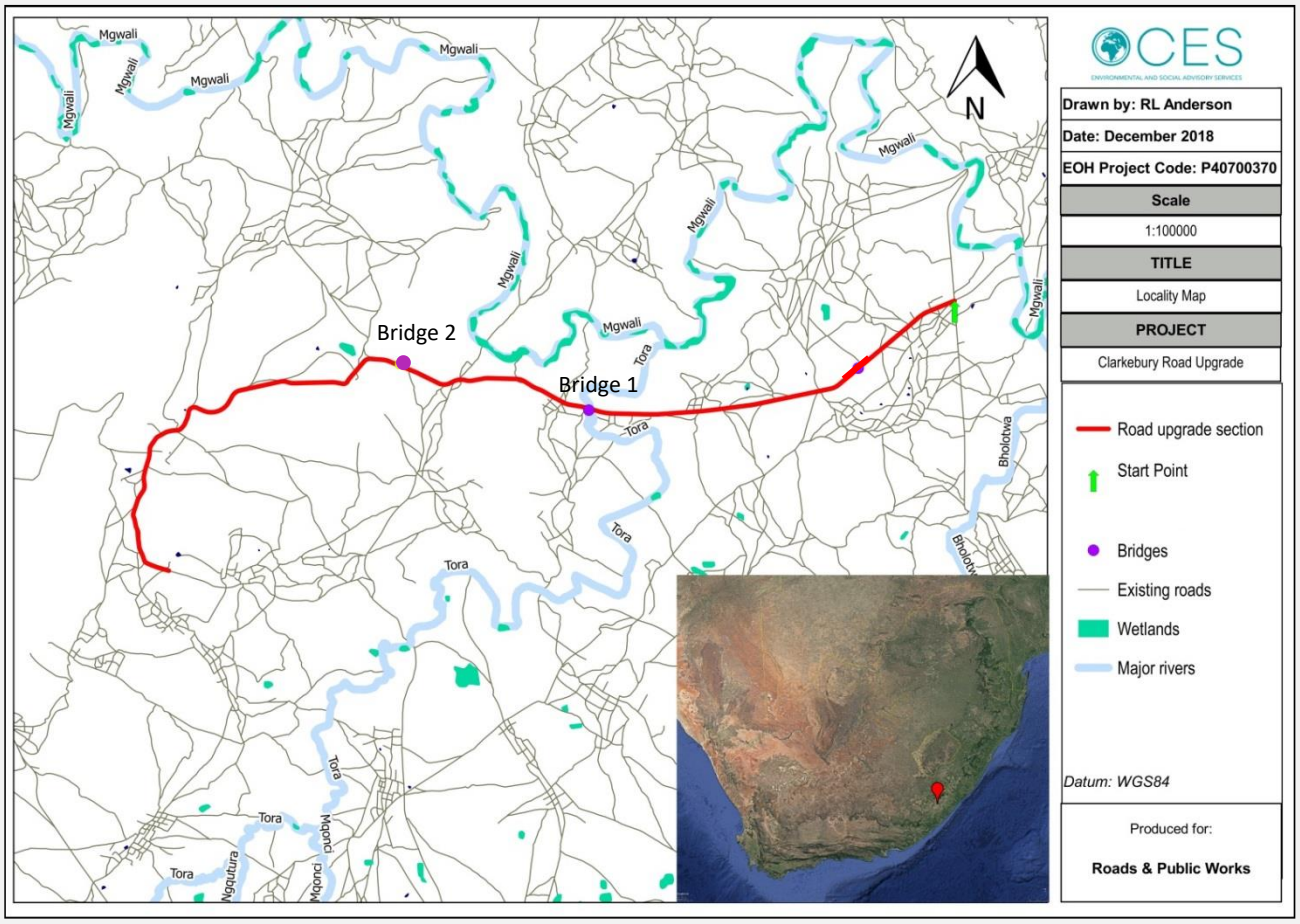


Figure 1.1: Locality map of the proposed road upgrade.

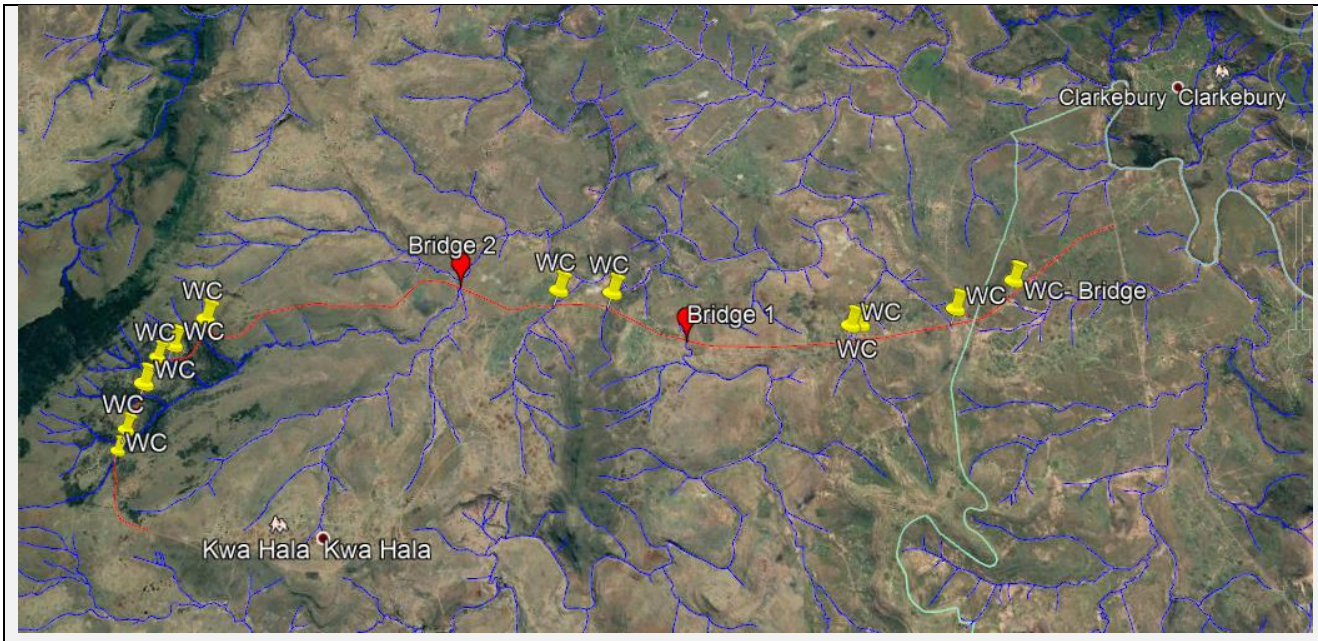


Figure 1.2 Location of water crossings along the road upgrade.

Figure 1.3: Bridge 1 - new bridge proposed to be constructed across the Tora River roughly 50m to the right of the existing bridge.

Figure 1-4: Bridge 2 - new bridge proposed to be constructed across the Mjanyana River roughly 50m to the right of the existing bridge.

2. Biophysical Environment

2.1 Climate

Climate data on the nearest town, Engcobo, was used to describe the climate of the study area. Engcobo normally receives about 701 mm of rain per year, with most rainfall occurring mainly during summer. The chart below (lower left) shows the average rainfall values for Engcobo per month. It receives the lowest rainfall (6 mm) in June and the highest (110 mm) in February. The monthly distribution of average daily maximum temperatures (center chart below) shows that the average midday temperatures for Engcobo range from 18.6°C in June to 27°C in January. The region is the coldest during July when the mercury drops to 3.8°C on average during the night. Consult the chart below (lower right) for an indication of the monthly variation of average minimum daily temperatures.

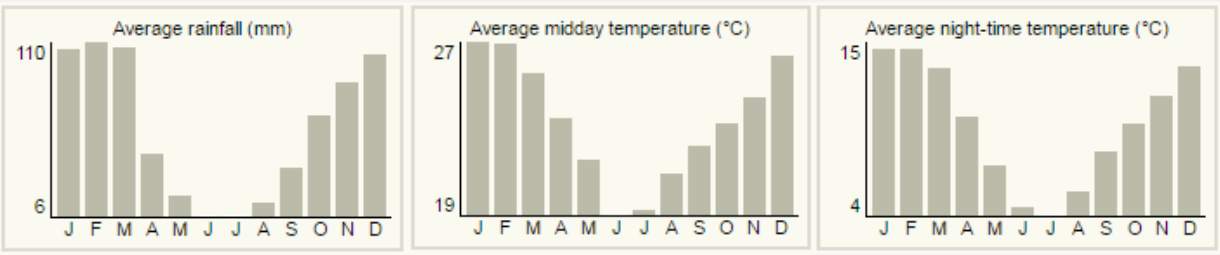


Figure 2.1 Engcobo weather data.

2.2 Topography

The proposed road upgrade is located within a dissected plain on sloping lands with an elevation range of about 626 meters above sea level (m.a.s.l) to about 792 m.a.s.l. (Figure 2.2 and 2.3).

Figure 2.2 Elevation profile along the upgraded road portion from Manjana Hospital to Clarkebury (west to east).

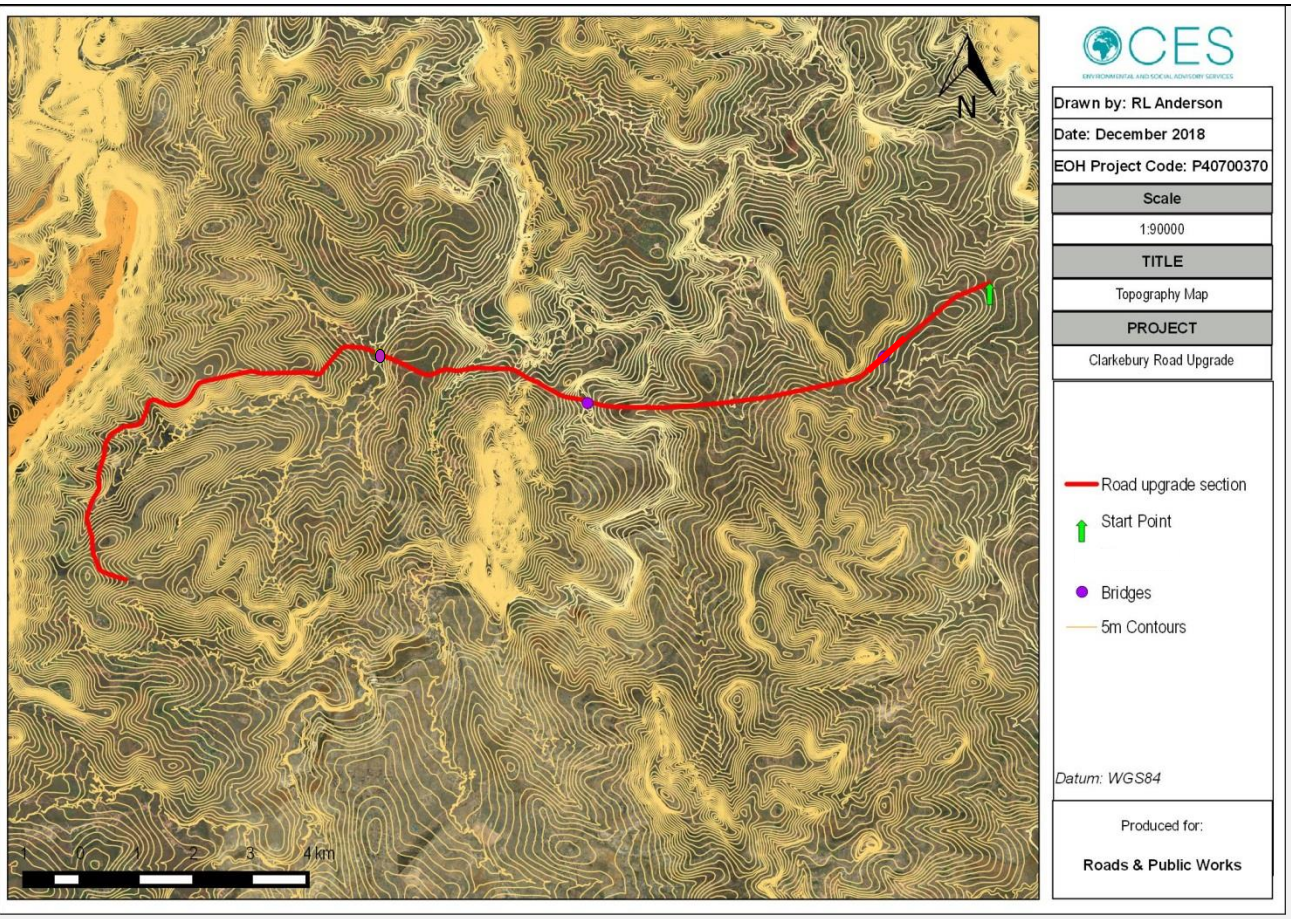


Figure 2.3 Contour map of the road upgrade site.

2.3 Geology and Soils

The road upgrade portion is underlain by Mudstones of the Tarkastad subgroup of the Beaufort group. The soils found within the study area are classified as soils with a marked clay accumulation as well as soils with minimal development, usually shallow on hard or weathering rock, with or without intermittent diverse soils (SOTER Soil Association map).

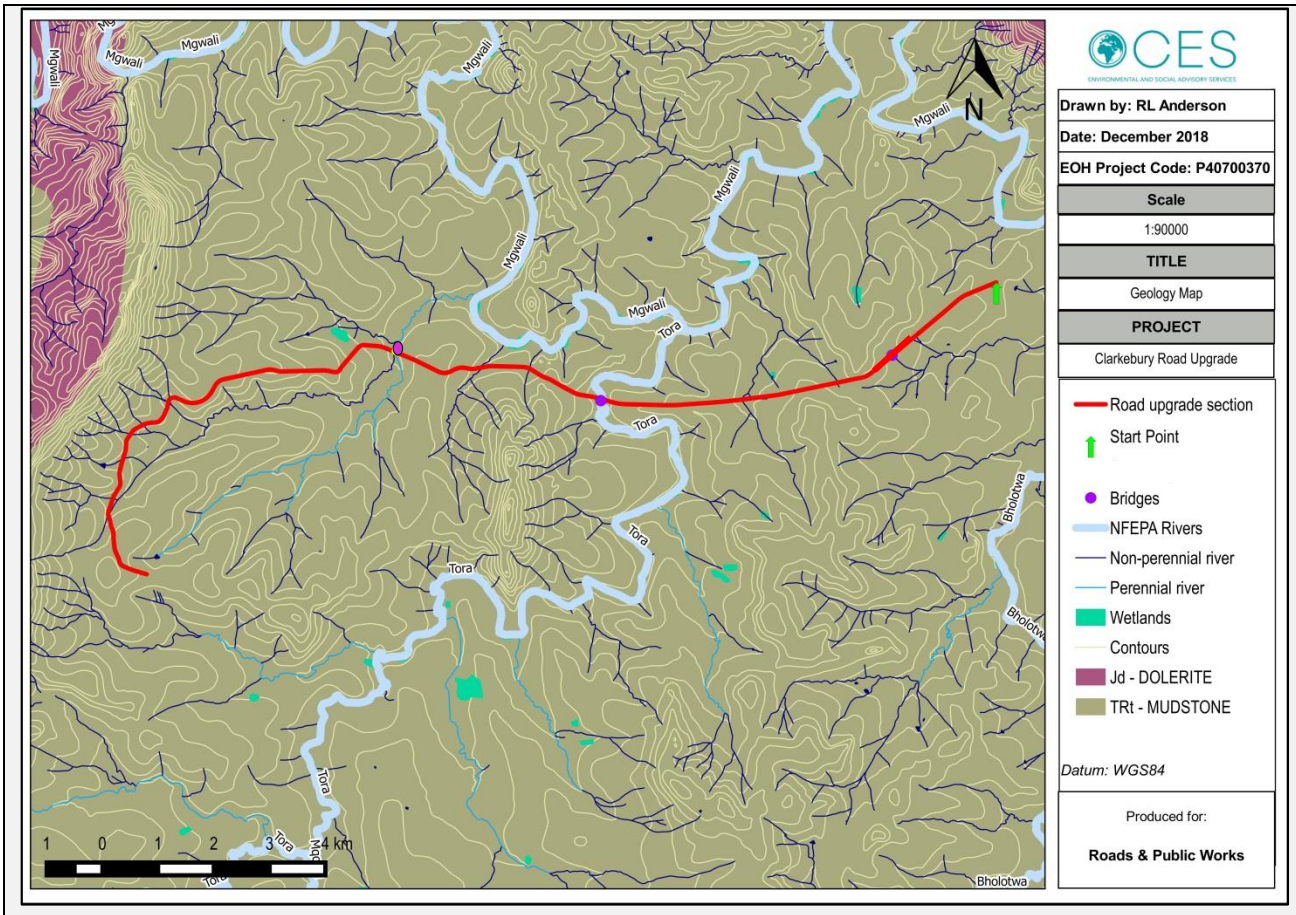


Figure 2.4 Geology map of the road upgrade route.

2.4 Vegetation and Floristics

SANBI Classification (VegMap, 2018)

The South African Vegetation Map (VegMap) (SANBI, 2018) indicates that the road falls within **Mthatha Moist Grassland**. Mthatha Moist Grassland occurs on the undulating plains and hills between Mthatha and Butterworth at an altitude of 600-1080m. The vegetation is species-poor, sour, wiry grassland with *Eragrostis plana* and *Sporobolus africanus*, dominated by *Themeda trianda*. This vegetation type is classified as **ENDANGERED** (VegMap, 2018), and is listed as a **VULNERABLE** Threatened Ecosystem in terms of the National Environmental Management: Biodiversity Act (No. 10 of 2004) (NEMBA), with a conservation target of 23%.

More than 40% is transformed for cultivation and plantations in dense rural human settlements. Other issues faced by this vegetation type are alien invasive plants species and erosion.

The road to be upgraded is an existing gravel road, therefore, the upgrade of the existing road would therefore have very little impact on the surrounding natural grassland.

Although no plant Species of Conservation Concern (SCC's) were identified by the Ecological Specialist (refer to **Appendix D1 – Ecological Impact Assessment Report**) in close proximity to the access road, it is likely possible that some may occur. Therefore, search and rescue activities must be conducted by a suitably qualified environmental control officer (ECO) and/or botanist must be conducted prior to construction.

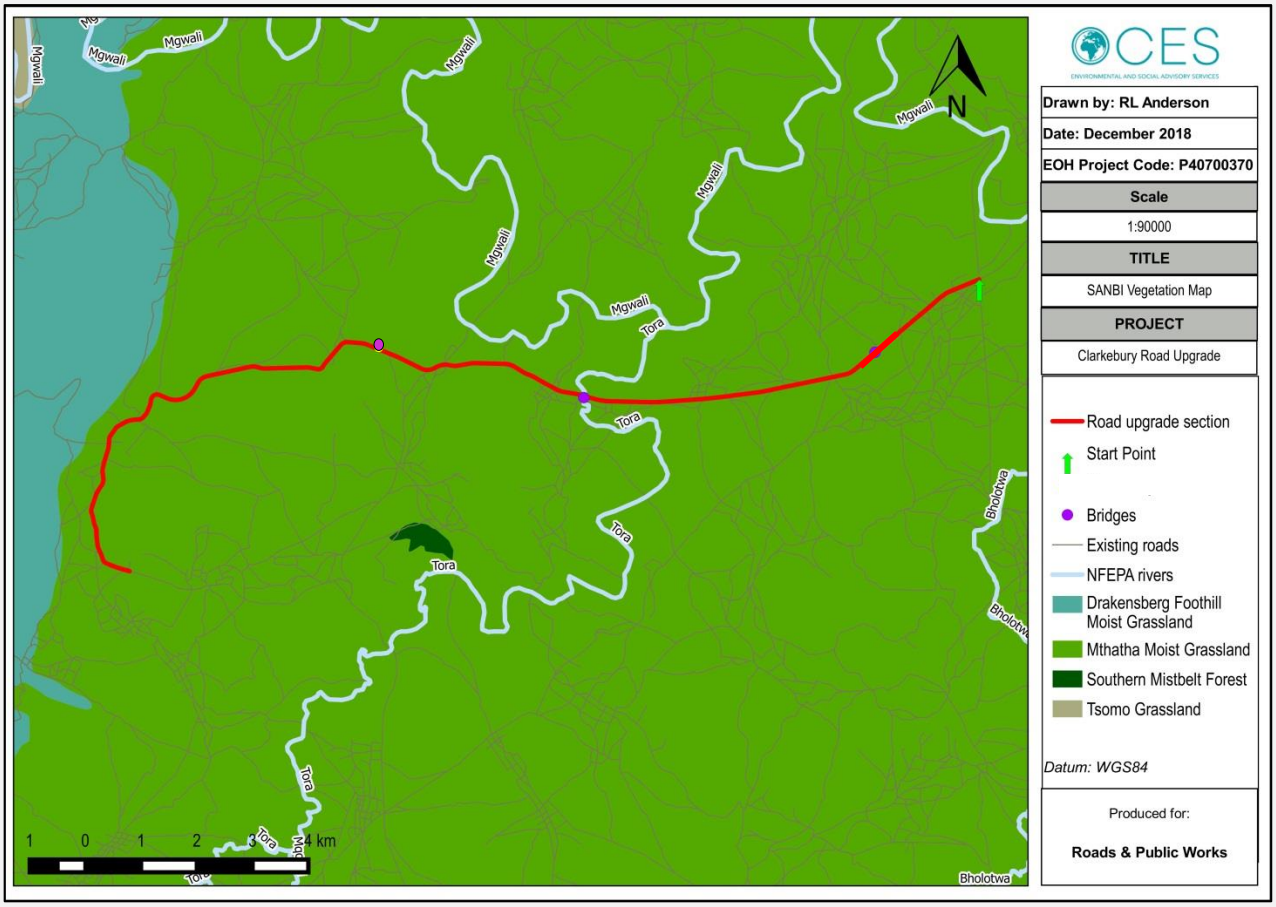


Figure 2.5 VegMap (SANBI, 2018) showing the vegetation type of the proposed site.

2.5 Surface Water Features

The road traverses numerous rivers and river tributaries as indicated in Figure 2.6 below. The road route also falls within numerous natural and artificial wetland buffer areas. According to the NFEPA wetland map the road upgrade will not directly impact any wetlands. The study area is located within three (3) quaternary catchments, namely T12E, T12F and T12G within Water Management Area (WMA) 7, the Mzimvubu to Tsitsikamma region.

Refer to **Appendix D2 – Aquatic Impact Assessment Report** for further information regarding the aquatic features identified on site and the results of the detailed aquatic impact assessment undertaken.

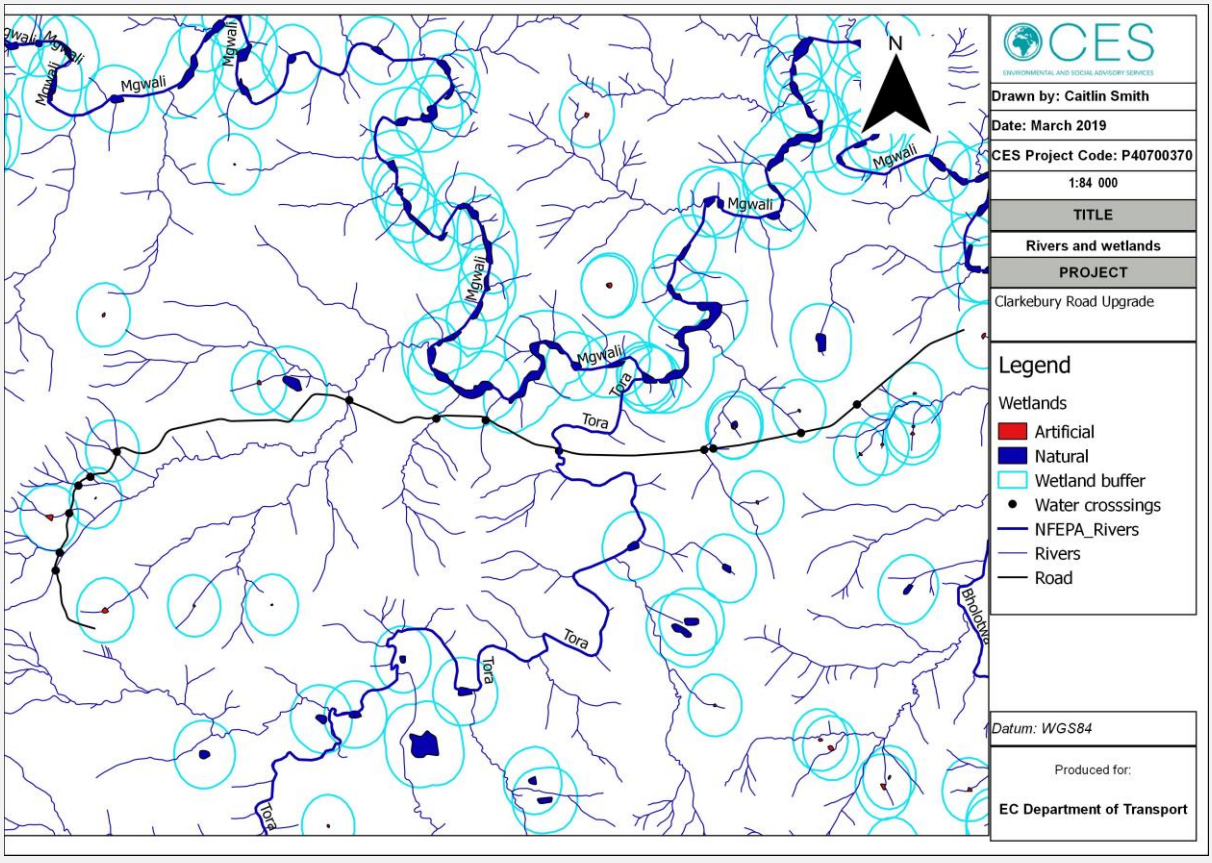


Figure 2.6 Wetlands and rivers in the study area.

2.6 Forests

No indigenous forest patches occur within or near the proposed road upgrade and mining sites. Therefore, no natural forest will be impacted by the proposed development.

2.7 Biodiversity Indicators

South Africa's policy and legislative framework for biodiversity is well developed, providing a strong basis for the conservation and sustainable use of biodiversity. South Africa is one of the few countries in the world to have a Biodiversity Act and a National Biodiversity Institute.

Key components of the national policy and legislative framework for biodiversity relevant to this study include:

1. The White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity (1997);
2. The National Environmental Management: Biodiversity Act (Act 10 of 2004) (NEMBA);
3. NEMBA List of Ecosystems in need of Protection;
4. NEMBA List of Threatened or Protected Species;
5. NEMBA List of Alien Invasive Species;
6. The National Environmental Management: Protected Areas Act (Act 57 of 2003) (NEMPAA);
7. The National Biodiversity Strategy and Action Plan (NBSAP) (2015);
8. The National Spatial Biodiversity Assessment (2004, currently being reviewed and updated) (NSBA);
9. The National Biodiversity Framework (2008) (NBF); and
10. The National Protected Area Expansion Strategy (2008) (NPAES).

2.7.1 Eastern Cape Biodiversity Conservation Plan

The Eastern Cape Biodiversity Conservation Plan (ECBCP2007) is a broad scale systematic biodiversity plan. It must be consulted as it represents the systematic biodiversity plan adopted by the competent authority (DEDEAT), which triggers listed activities requiring Environmental Authorisation. Furthermore, it must be verified via an on-site field assessment given potential inaccuracies and errors. The ECBCP is currently being updated.

The ECBCP2007 indicates that the proposed road route falls largely within areas categorised as terrestrial **CBA 2**, while a relatively small section of the road falls within areas categorised as **CBA 1** (Figure 2.7 below).

It must be noted that the because this is an existing district road, much of the route of the road as well as the road reserve is already disturbed. Therefore, the proposed upgrade is not in conflict with the CBA recommendations. However, in the sections where the road will be realigned and deviate from the existing

road reserve, mitigation measures can be implemented to ensure that the construction footprint has a minimal impact on biodiversity and areas are rehabilitated.

Table 2.1 Management requirements of CBA 1 and 2 (taken from the ECBCP 2007 Handbook):

CBA area	Management requirements
CBA 1	These areas are considered as natural landscapes and biodiversity must be maintained in an as natural state as possible so that there is no future biodiversity loss.
CBA 2	These areas are considered as near-natural landscapes and biodiversity must be managed in a near natural state with minimal loss of ecosystem integrity. No transformation of natural habitat should be permitted.

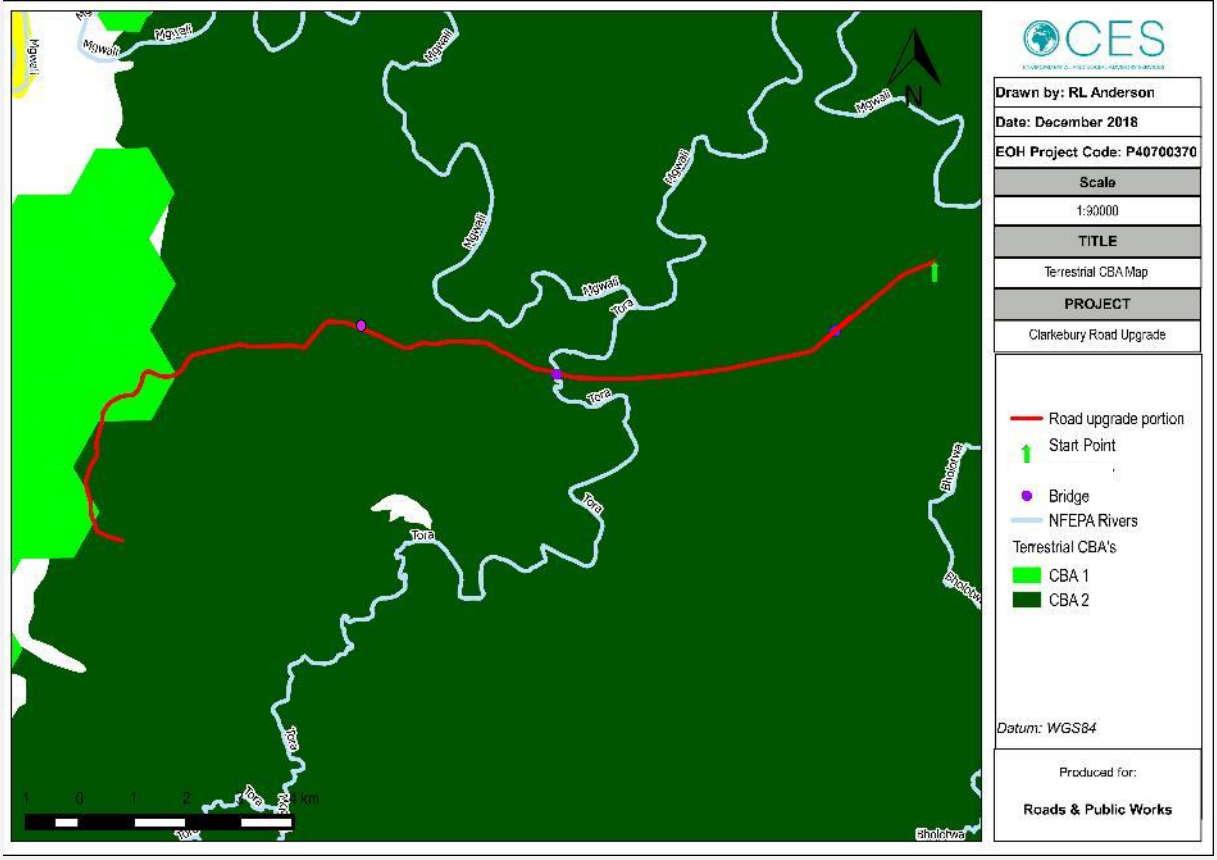


Figure 2.7: ECBCP (2007) terrestrial conservation biodiversity classes for the proposed road upgrade.

2.7.2 Threatened Ecosystems

The National Environmental Management: Biodiversity Act (No. 10 of 2004) (NEMBA) has released a national list of ecosystems that are threatened and in need of protection (GN. 1002 of 2011). The entire study site falls within the Mthatha Moist Grassland, which is classified as a NEMBA **VULNERABLE** (Threatened) Ecosystem. However, as mentioned above, the upgrade of the existing gravel road will not result in little to no loss of intact natural habitat.

2.7.3 Protected Areas

Target areas (focus areas) for expansion of the Protected Area network in South Africa were identified through a systematic biodiversity planning process undertaken as part of the development of the 2008 National Protected Area Expansion Strategy (NPAES), as well as the 2012 provincial Protected Area Expansion Strategy.

The proposed development does not fall within or near to an NPAES protected area or focus area.

2.8 Site Sensitivity

A sensitivity map (Figure 2.8 below) was developed based on desktop and site information gathered, and was classified into areas of high, moderate and low sensitivity. The map furthermore incorporates the sensitivity and impact assessments contained in the specialist studies, i.e. Ecological, Aquatic and Archaeological Impact Assessment Reports (refer to Appendix D). The sensitivity assessment excluded CBA categories, as the site visit confirm the immediate surroundings of the existing road reserve to be of little concern to biodiversity. A summary of the sensitivity of the site is described below:

High sensitivity areas:

- Natural delineated wetlands, delineated riparian zones of rivers and tributaries of the rivers affected by the activity; and
- Identified Heritage and Archaeological features.

Moderate sensitivity:

- All artificial wetlands;
- Areas within 50m of natural wetlands, artificial wetlands, and rivers; and
- Heritage and Archaeological buffer areas.

Low sensitivity:

- 500 m low sensitivity area placed around wetlands (regulated by DWS).

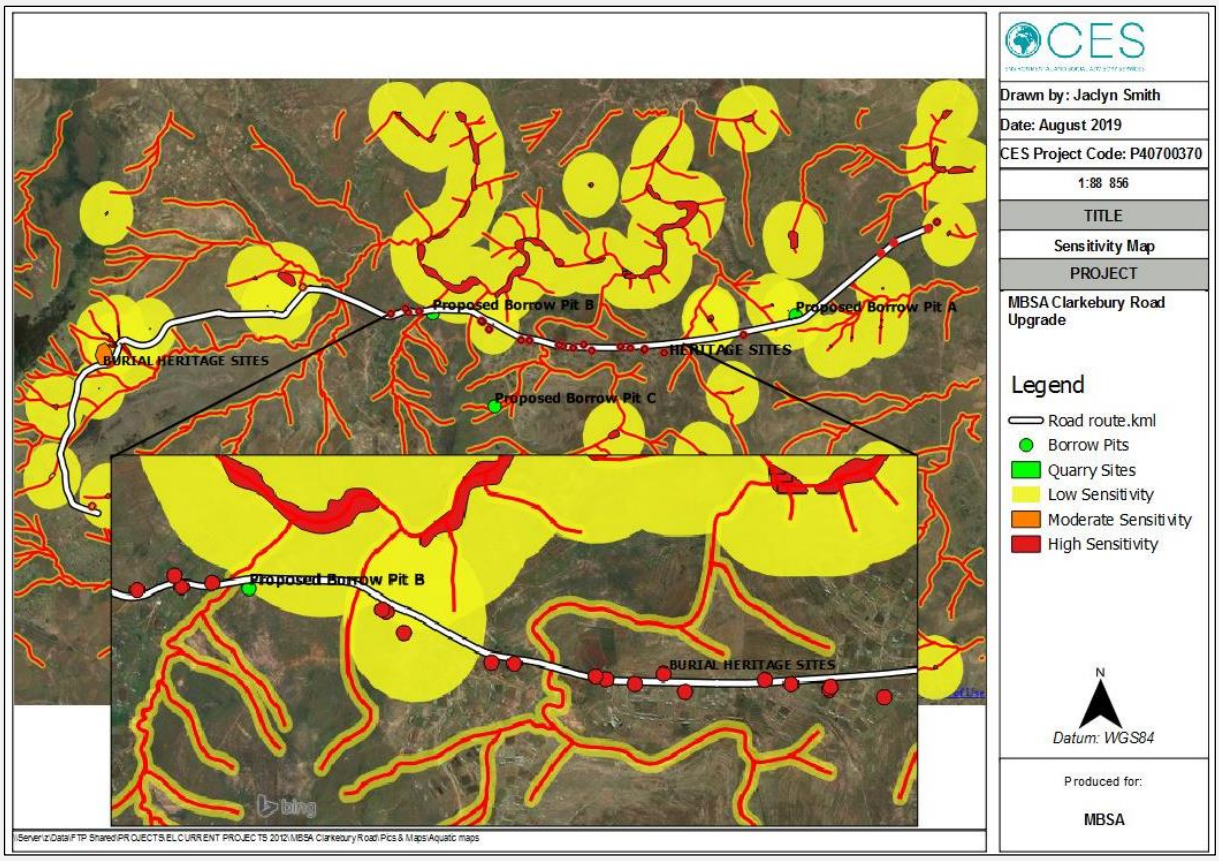


Figure 2.8: Sensitivity Map of the study area

3. Socio-Economic Profile

The proposed road upgrade section falls within two district municipalities, namely the Chris Hani District Municipality (CHDM) and the Amathole District Municipality (ADM), and within two local municipalities, namely the Mbashe Local Municipality (MLM) (within the ADM) and the Engcobo Local Municipality (ELM) (within the CHDM).

3.1 Population

The Mbashe Local Municipality has a total population of approximately 277 250 people and covers an area of approximately 3169.45 m^2. The population is spread amongst 31 wards with approximately 58 727 households. The average household consists of 4.7 people. The municipality comprises of an 86.3% Male:

Female sex ratio. About 59% of the population falls between the age of 15-64 years, whilst 5.2% are in the pension group (over 65 years) and 35.8% are less than 15 years of age.

The Engcobo Local Municipality has a total population of approximately 162 014 people and covers an area of approximately 2483.87 m^2. The population is spread amongst 20 wards with approximately 33 156 households. The average household consists of 4.9 people. The municipality comprises of an 85.6% Male: Female sex ratio. About 50.3% of the population falls between 15-64 years, whilst 5.4% are in the pension group (over 65 years) and 44.2% are less than 15 years of age.

3.2 Education

15.6% of the MLM population has no schooling. 13.7% have matric and only 4.5% of the population have any form of higher education.

21% of the ELM population has no schooling. 13.8% have matric and only 5.3% of the population have any form of higher education.

3.3 Employment

The MLM has an unemployment rate of 93% and 60% of the population is not economically active. The major sectors in the MLM include agriculture, tourism, ocean economy, community services, construction and trade.

The ELM has an unemployment rate of 46% and 40% of the population is not economically active. The major sectors in the ELM include wholesale, retail, trade, catering and accommodation, community, social and personal services and general government.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

ANALYSIS OF ALTERNATIVES

FUNDAMENTAL, INCREMENTAL AND NO-GO ALTERNATIVES

Fundamental alternatives

Fundamental alternatives are developments that are totally different from the proposed project and usually include the following:

- Alternative property or location where it is proposed to undertake the activity (i.e. site alternatives);
- Alternative type of activity to be undertaken (i.e. land-use alternatives); and
- Alternative technology to be used in the activity (i.e. technical alternatives);

Incremental alternatives

Incremental alternatives relate to modifications or variations to the design of a project that provide different options to reduce or minimise environmental impacts. The incremental alternatives that can be considered with respect to the current development project include:

- Alternative design; or
- Alternative layout of the activity.

No-go alternative

It is mandatory to consider the "no-go" option in the EIA process. The "no-go" alternative refers to the current status quo and the risks and impacts associated with it. Some existing activities may carry risks and may be undesirable (e.g. an existing contaminated site earmarked for a development). In the case of the current proposed development, the only "no-go" refers to **the road remaining in its current condition.**

Site alternatives

No site alternatives have been assessed as the upgrade takes place on an existing district road. Therefore route/site alternatives are not deemed feasible.

Alternative	Description		Lat (DDMMSS)	Long (DDMMSS)
Site Alternative 1 **(Only alternative)**	Existing road is used, no alternative site is proposed. (Figure 6.1).	Start point	31°48'41.27"S	28°15'57.12"E
		Middle point (Bridge over Tora River crossing)	31°49'49.91"S	28°11'27.05"E
		End point	31°51'30.62"S	28° 6'16.90"E

Layout alternatives

The following layout alternatives are assessed:

Alternative	Description
Layout Alternative 1 **(Only alternative)**	The preferred layout consists of upgrading of the existing DR08035 road.

Other alternatives

No other alternatives are being assessed.

CONCLUSION

It has been determined that the current proposal *(preferred option)* is the only reasonable and feasible option to assess further in the EIA, together with the No-Go option. This project involves the upgrading of an existing road and thus alternative locations or activities are not deemed feasible.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.
List alternative sites if applicable.

	Latitude (S):		Longitude (E):	
Alternative:				
~~Alternative S1[1] (preferred or only site alternative)~~				
~~Alternative S2 (if any)~~				
~~Alternative S3 (if any)~~				

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
Alternative S1 (preferred or only route alternative)		
• Starting point of the activity	31°48'42.14"S, 28°15'56.78"E	
• Middle point of the activity	31°49'33.63"S, 28°10'30.15"E	
• End point of the activity	31°51'32.42"S, 28° 6'16.51"E	
~~Alternative S2 (if any)~~		
~~• Starting point of the activity~~		
~~• Middle point of the activity~~		
~~• End point of the activity~~		
~~Alternative S3 (if any)~~		
~~• Starting point of the activity~~		
~~• Middle point of the activity~~		
~~• End point of the activity~~		

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

[1] "Alternative S.." refer to site alternatives.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Alternative A1[2] (preferred activity alternative)	**120 000 m²**
~~Alternative A2 (if any)~~	~~m²~~
~~Alternative A3 (if any)~~	~~m²~~

~~or, for linear activities:~~

~~**Alternative:**~~	~~**Length of the activity:**~~
~~Alternative A1 (preferred activity alternative)~~	~~m~~
~~Alternative A2 (if any)~~	~~m~~
~~Alternative A3 (if any)~~	~~m~~

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**
~~Alternative A1 (preferred activity alternative)~~	~~m²~~
~~Alternative A2 (if any)~~	~~m²~~
~~Alternative A3 (if any)~~	~~m²~~

5. SITE ACCESS

	YES	~~NO~~
Does ready access to the site exist?		
If NO, what is the distance over which a new access road will be built		~~m~~

Describe the type of access road planned:

[2] "Alternative A.." refer to activity, process, technology or other alternatives.

There is already existing access to the site via an existing gravel road (refer to Figure 1.1). This will be utilised during the construction and operation of the proposed development.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as **Appendix A** to this document. The site or route plans must indicate the following:

6.1 the scale of the plan which must be at least a scale of 1:500;

6.2 the property boundaries and numbers of all the properties within 50 metres of the site;

6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;

6.4 the exact position of each element of the application as well as any other structures on the site;

6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;

6.6 all trees and shrubs taller than 1.8 metres;

6.7 walls and fencing including details of the height and construction material;

6.8 servitudes indicating the purpose of the servitude;

6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):

- rivers;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or invested with alien species);

6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and

6.10 the positions from where photographs of the site were taken.

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under **Appendix B** to this form**.** It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as **Appendix C** for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	**±R100 million**	
What is the expected yearly income that will be generated by or as a result of the activity?	**N/A**	
Will the activity contribute to service infrastructure?	**YES**	~~**NO**~~
Is the activity a public amenity?	**YES**	~~**NO**~~
How many new employment opportunities will be created in the development phase of the activity?	**200 (100 skilled; 100 unskilled)**	
What is the expected value of the employment opportunities during the development and operational phase?	**R5 million**	

What percentage of this will accrue to previously disadvantaged individuals?	**98%**
How many permanent new employment opportunities will be created during the operational phase of the activity?	**N/A**
What is the expected current value of the employment opportunities during the first 10 years?	**N/A**
What percentage of this will accrue to previously disadvantaged individuals?	**N/A**

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

The Eastern Cape Department of Transport has prioritised roads to rural hospitals within the province. Mjanyana Hospital is a provincial facility providing a comprehensive health care service which includes HIV and TB-related treatment, care and support services. The hospital serves mainly the community of villages around Ngcobo and Dutywa. The aim of the road upgrade is to provide easy access for villagers along the route of DR08035 from Clarkebury and surrounding areas.

According to the Mbashe Local Municipality Integrated Development Plan (2018-19), upgrading, routine maintenance, re-gravelling and major repairs on minor structures and bridges on district roads are significantly needed. The deteriorated state of district roads within the municipal area has resulted in horrific road accidents (IDP 2018-19). The IDP (2018-19) asserts that the state of the proposed section of road between the N2 to R61 via Clarkebury is of specific concern. The Mbashe IDP (2018-19) stresses that the provincial road (DR08035) that leads to the Mjanyana hospital requires upgrading as due to the current poor road network, communities experience difficulties in accessing health facilities. It is for these reasons highlighted in the Mbashe IDP (2018-19) that there is a stringent need and desire for the proposed section of road to be upgraded.

The Amathole District Municipality IDP (2018-19) asserts that one of the key spatial development programmes involves the upgrading of access roads in order to improve access to facilities, reduce accidents and encourage rural development.

Road improvements are stipulated in the Eastern Cape Provincial Spatial Development Framework (PSDF) to improve quality of service on existing roads such as relieving traffic congestion, improve road safety, improve overtaking opportunities, etc.

Indicate any benefits that the activity will have for society in general:

There will be potential business opportunities associated with operational phase. The project also has the potential for providing around 200 temporary jobs, skills and training opportunities during construction phase.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

Benefits to the local community would include:

- Temporary job opportunities during construction;
- Skills development and educational training opportunities during construction; and
- Improved road conditions and better access to the local hospital.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Act (NEMA) (Act No. 107 of 1998)	Department of Environmental Affairs (DEA)	1998
NEMA Environmental Impact Assessment (EIA) Regulations	Department of Environmental Affairs (DEA)	2014
	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	
National Environment Management: Biodiversity Act (Act No.10 of 2004)	Department of Environmental Affairs (DEA): Biodiversity	2004

	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	
Eastern Cape Biodiversity Conservation Plan (DEDEAT, 2007)	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	2007
National Environmental Management: Protected Areas Act (NEM:PAA)	Department of Environmental Affairs (DEA)	2003
	Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)	
National Heritage Resources Act (Act No. 25 of 1999)	South African Heritage Resources Agency (SAHRA)	1999
	Eastern Cape Provincial Heritage Resources Authority (ECPHRA)	
National Water Act (Act No. 36 of 1998)	Department of Water and Sanitation (DWS)	1998
National Waste Act (Act No. 59 of 2008)	Department of Environmental Affairs (DEA)	2008
Constitution Act (Act No. 108 of 1996)	Republic of South Africa	1996
National Forestry Act (Act No. 84 of 1998)	Department of Agriculture, Forestry and Fisheries (DAFF)	1998
Occupational Health and Safety Act (85 of 1993)	Department of Labour	1993
Chris Hani & Amathola District Municipalities (SDF & IDP framework)	Chris Hani & Amathola District Municipalities	2018/19

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**	~~NO~~
If yes, what estimated quantity will be produced per month?	50 m^3	
How will the construction solid waste be disposed of (describe)?		

During the construction phase, solid waste generated by the project will be gathered and stored in an appropriate, central area on site. This waste will later be removed and disposed of into the nearest licensed landfill site.

Where will the construction solid waste be disposed of (describe)?

All non-hazardous wastes generated during the construction phase will be disposed of into the nearest licensed landfill.

Will the activity produce solid waste during its operational phase?	~~YES~~	**NO**
If yes, what estimated quantity will be produced per month?	n/a	

How will the solid waste be disposed of (describe)?

During the construction phase, solid waste generated by the project will be gathered and stored in an appropriate, central area on site. This waste will later be removed and disposed of into the nearest licensed landfill site.

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A – Waste to be disposed at a landfill site.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	~~YES~~	**NO**

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?	~~YES~~	**NO**

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	~~YES~~	**NO**
If yes, what estimated quantity will be produced per month?	N/A	
Will the activity produce any effluent that will be treated and/or disposed of on site?	~~YES~~	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	~~YES~~	**NO**

If yes, provide the particulars of the facility:

~~Facility name:~~	n/a		
~~Contact person:~~			
~~Postal address:~~			
~~Postal code:~~			
~~Telephone:~~		~~Cell:~~	
~~E-mail:~~		~~Fax:~~	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	~~YES~~	**NO**
If yes, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

During construction phase, emissions into the atmosphere will be limited to construction dust and these will be low in both quantity and severity. Sources of emissions include those produced by heavy diesel vehicles involved in site preparation of the proposed building and parking areas and road maintenance. These activities will occur only over a short time period.

11(d) Generation of noise

Will the activity generate noise?	**YES**	~~NO~~
If yes, is it controlled by any legislation of any sphere of government?	~~YES~~	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

There will be low level noise emissions during the construction phase due to construction vehicles and general construction activities.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal	~~water board~~	~~groundwater~~	~~river, stream, dam or lake~~	~~other~~	~~the activity will not use water~~

~~If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate~~

~~the volume that will be extracted per month:~~ ~~litres~~

Does the activity require a water use permit from the Department of Water Affairs?

YES	~~NO~~

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

The Water Use Licensing Application is in progress. See **Appendix H** for proof.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

The use of feasible power saving technologies will be considered where possible.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Not applicable.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A):	**1**

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section?

YES	NO

If YES, please complete form XX for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

1. GRADIENT OF THE SITE

The topography ranges from 510m above sea level in the north western portion of the development to 513m above sea level approximately in the middle of the development. The altitude then drops again to 512m above sea level in the south eastern portion of the development, as indicated in Figure 1.1 below.

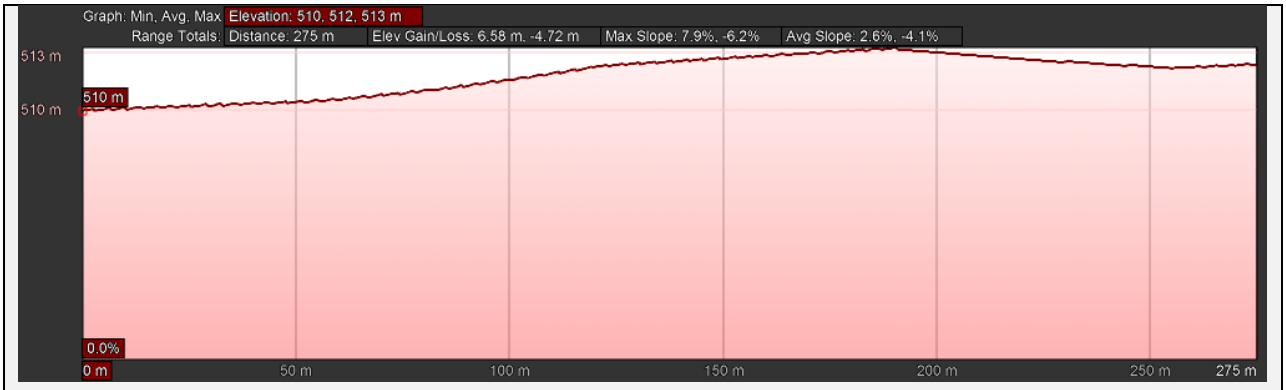


Figure 1.1: Elevation profile of the proposed site from north west to south east.

Indicate the general gradient of the site.

Alternative S1:

~~Flat~~	1:50 – 1:20	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~**1:7,5 – 1:5**~~	~~Steeper than 1:5~~

~~Alternative S2 (if any):~~

~~Flat~~	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

~~Alternative S3 (if any):~~

~~Flat~~	~~1:50 – 1:20~~	~~1:20 – 1:15~~	~~1:15 – 1:10~~	~~1:10 – 1:7,5~~	~~1:7,5 – 1:5~~	~~Steeper than 1:5~~

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

~~2.1 Ridgeline~~
~~2.2 Plateau~~
2.3 Side slope of hill/mountain
~~2.4 Closed valley~~
~~2.5 Open valley~~

~~2.6 Plain~~
2.7 Undulating plain / low hills
~~2.8 Dune~~
~~2.9 Seafront~~

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:		**Alternative S2 (if any):**		**Alternative S3 (if any):**	
Shallow water table (less than 1.5m deep)	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dolomite, sinkhole or doline areas	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Seasonally wet soils (often close to water bodies)	**YES**	~~NO~~	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Unstable rocky slopes or steep slopes with loose soil	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Dispersive soils (soils that dissolve in water)	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Soils with high clay content (clay fraction more than 40%)	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~
Any other unstable soil or geological feature	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~
An area sensitive to erosion	~~YES~~	**NO**	~~YES~~	~~NO~~	~~YES~~	~~NO~~

The proposed site is underlain by Mudstone with subordinate sandstone of the Adelaide group and intrusions by Karoo dolerite, dykes and sills. The substrate is primarily loamy soils, but there is significant variability. Erosion is very low to moderate (Mucina & Rutherford, 2012).

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Four distinct vegetation communities were observed within and surrounding the proposed site, namely:
Indicate the types of groundcover present on the site:

~~4.1 Natural veld – good condition~~ [E]
4.2 Natural veld – scattered aliens [E]
~~4.3 Natural veld with heavy alien infestation~~ [E]
~~4.4 Veld dominated by alien species~~ [E]
~~4.5 Gardens~~
~~4.6 Sport field~~
~~4.7 Cultivated land~~
~~4.8 Paved surface~~
~~4.9 Building or other structure~~
4.10 Bare soil

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

~~Natural veld - good condition~~[E]	Natural veld with scattered aliens[E]	~~Natural veld with heavy alien infestation~~[E]	~~Veld dominated by alien species~~[E]	~~Gardens~~
~~Sport field~~	~~Cultivated land~~	~~Paved surface~~	~~Building or other structure~~	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area
~~5.2 Low density residential~~
~~5.3 Medium density residential~~
~~5.4 High density residential~~
5.5 Informal residential
~~5.6 Retail commercial & warehousing~~
~~5.7 Light industrial~~
~~5.8 Medium industrial~~[AN]
~~5.9 Heavy industrial~~[AN]
~~5.10 Power station~~
~~5.11 Office/consulting room~~
~~5.12 Military or police base/station/compound~~
~~5.13 Spoil heap or slimes dam~~[A]
~~5.14 Quarry, sand or borrow pit~~
5.15 Dam or reservoir
5.16 Hospital/medical centre
5.17 School
~~5.18 Tertiary education facility~~
~~5.19 Church~~
~~5.20 Old age home~~

~~5.21 Sewage treatment plant~~[A]
~~5.22 Train station or shunting yard~~[N]
~~5.23 Railway line~~[N]
~~5.24 Major road (4 lanes or more)~~[N]
~~5.25 Airport~~[N]
~~5.26 Harbour~~
~~5.27 Sport facilities~~
~~5.28 Golf course~~
~~5.29 Polo fields~~
~~5.30 Filling station~~[H]
~~5.31 Landfill or waste treatment site~~
~~5.32 Plantation~~
5.33 Agriculture
5.34 River, stream or wetland
~~5.35 Nature conservation area~~
~~5.36 Mountain, koppie or ridge~~
~~5.37 Museum~~
~~5.38 Historical building~~
~~5.39 Protected Area~~
~~5.40 Graveyard~~
~~5.41 Archaeological site~~
~~5.42 Other land uses (describe)~~

If any of the boxes marked with an "N "are ticked, how will this impact / be impacted upon by the proposed activity.

N/A

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

If YES, specify:

N/A

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

N/A

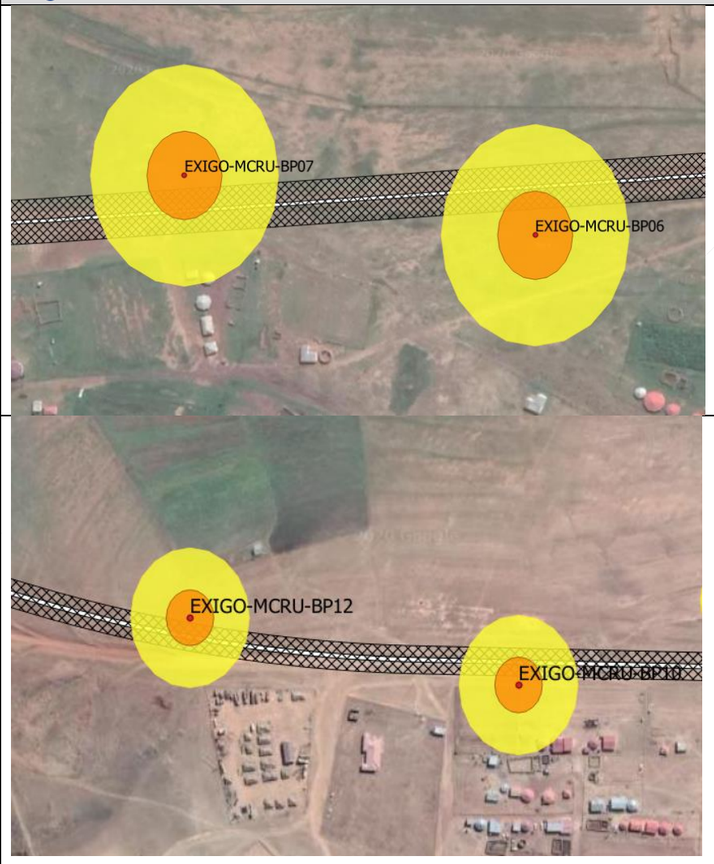
6. CULTURAL/HISTORICAL FEATURES

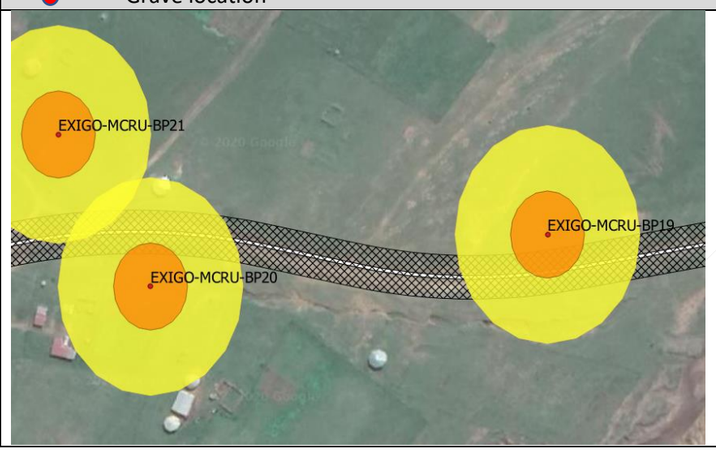
Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or Palaeontological sites, on or close (within 20m) to the site?	**YES**	~~NO~~

If YES, explain:	A summary of the findings of the Archaeological Impact Assessment (Appendix D3) is as follows: • **Palaeontology:** Portions of the project area fall within a potentially sensitive fossiliferous zone. Mitigation - Should fossil remains such as fossil fish, reptiles or petrified wood be exposed during construction, these objects should carefully safeguarded and the relevant heritage resources authority (SAHRA) should be notified immediately so that the appropriate action can be taken by a professional paleontologist. • **Historical Period:** The remains of Historical Period homesteads and dwellings (Site EXIGO-MCRU-HP01 - Site EXIGO-MCRU-HP03) and the poorly preserved Phillipsdale Trading Post compound are of medium-low significance due to the poor state of preservation of the sites. These sites occur in close proximity of the project area and it is recommended that the necessary destruction permits be obtained from the relevant Heritage Resources Authorities prior to site impact and destruction, should it be required. Mitigation – ECO monitoring. • The Historically significant Mjanyana Hospital (Site EXIGO-MCRU-HP05) and the old Lookout Trading Post compound (Site EXIGO-MCRU-HP06) have the potential to inform on architectural, settlement and social developments in the larger Clarkebury landscape and the sites are of medium heritage significance. Mitigation - A conservation buffer of at least 20m around the site should be implemented and monitored by the ECO. • **Iron Age Period:** An extensive later Iron Age Farmer Period stone walled complex (Site EXIGO-MCRU-IA01) have the potential to inform on the spread of Iron Age communities in the interior of the Eastern Cape and the site is of medium heritage significance. Mitigation - A conservation buffer of at least 20m around the site should be implemented and monitored by the ECO. Should impact on the site prove inevitable it should be adequately documented by means of a Phase 2 Specialist Study. • **Grave/burial sites:** Graves and burials identified in close proximity of the road upgrade (Site EXIGO-MCRU-BP01 - Site EXIGO-MCRU-BP22) are of high significance and these sites might be impacted on by the proposed project. In most of the cases, the graves and cemeteries are situated near roads or within settlements, often around or very close to

	homesteads and homestead buildings and other infrastructure. Mitigation - Implement a heritage conservation buffer of at least 50m, where unfeasible implement a conservation buffer of 10m from graves subject to the erection of a temporary construction barricade along areas where construction might encroach on the 50m buffer and bi-weekly monitoring. Legally compliant grave relocation must occur if impact on any human burial site is foreseen. Burial sites affected in such a way should be monitored on a bi-weekly basis by an informed ECO. Of the 22 grave sites discussed above, 6 graves fall within 20m of the proposed road upgrade footprint. The table below provides an overview of these 6 sensitive grave sites and provides a summary of mitigation measures/recommendations applicable. All identified graves on site can be conserved in situ (provided that construction does not occur within 10m of these graves), except for grave site BP12 (refer to page 62 of the Archaeological Impact Assessment (Appendix D3)) which will be required to be relocated. **Conclusion of Specialist:** Heritage resources of significance occur within and in close proximity of the MBSA Clarkebury Road Upgrade Project zone and some of these heritage receptors might be impacted on by the proposed project. However, these impacts can be mitigated and in the opinion of the author of the Archaeological Impact Assessment Report, the proposed MBSA Clarkebury Road Upgrade Project may proceed from a culture resources management perspective, provided that mitigation measures contained in the Archaeological Impact Assessment Report are implemented where applicable, and provided that no subsurface heritage remains are encountered during any phase of development (Refer to Appendix D3 for the full Archaeological Impact Assessment Report).

Grave sites:	Distance from construction footprint	Image Legend:	Comments & Mitigations
Site EXIGO-MCRU-BP06 (right) S31.83131129; E28.20779317	15m	Road Upgrade Construction Footprint (15m wide) 50m buffer 20m buffer Grave location	• Implement a 10m conservation buffer around burial sites on the condition that a temporary construction barricade is erected around the burial site (but no closer than 3m). • Burial sites affected in such a way should be monitored on a bi-weekly basis by an informed ECO.
Site EXIGO-MCRU-BP07 (left) S31.83104139; E28.20592878	10m		
Site EXIGO-MCRU-BP10 (below right) S31.83130106; E28.19673141	10m		• As above for BP06 and BP07
Site EXIGO-MCRU-BP12 (left) S31.83082044; E28.19396672	3m		• It is recommended that BP12 grave be relocated given that it is located 3m from the toe of the embankment cut. • This should be undertaken by a qualified archaeologist, and in accordance with relevant legislation, permitting, statutory permissions and subject to any local and regional provisions and laws and by-laws pertaining to human remains. • A full social consultation process should occur in conjunction with the mitigation of cemeteries and burials (see Addendum B to the Archaeological Impact Assessment Report – Appendix D3 of the Final BAR).
Site EXIGO-MCRU-BP19 (right) S31.82522762; E28.16683399	10m		• Implement a 10m conservation buffer around burial sites on the condition that a temporary



Grave sites:	Distance from construction footprint	Image Legend:	Comments & Mitigations
Site EXIGO-MCRU-BP20 (left) S31.82546625; E28.16468672	15m	Road Upgrade Construction Footprint (15m wide) 50m buffer 20m buffer Grave location 	construction barricade is erected around the burial site (but no closer than 3m). • Burial sites affected in such a way should be monitored on a bi-weekly basis by an informed ECO.

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:	Heritage resources of significance occur within and in close proximity of the MBSA Clarkebury Road Upgrade Project zone and some of these heritage receptors might be impacted on by the proposed project. However, these impacts can be mitigated and in the opinion of the author of the Archaeological Impact Assessment Report (refer to Appendix D3), the proposed MBSA Clarkebury Road Upgrade Project may proceed from a culture resources management perspective, provided that mitigation measures contained in the Archaeological Impact Assessment Report are implemented where applicable, and provided that no subsurface heritage remains are encountered during any phase of development. **Refer to section above and Appendix D3 for the full Archaeological Impact Assessment Report.**

Will any building or structure older than 60 years be affected in any way?	~~YES~~	**NO**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	~~YES~~	**NO**

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  (i) the site where the activity to which the application relates is or is to be undertaken; and
  (ii) any alternative site mentioned in the application;

(b) giving written notice to—
  (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iii) owners 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;
  (iv) 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;
  (v) the municipality which has jurisdiction in the area;
  (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  (vii) any other party as required by the competent authority;

(c) 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;

(d) 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 local 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 sub-regulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  (i) illiteracy;
  (ii) disability; or
  (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and
(b) state—
  (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
  (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
  (iii) the nature and location of the activity to which the application relates;
  (iv) where further information on the application or activity can be obtained; and
  (iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

PLEASE SEE APPENDIX E FOR ALL PUBLIC PARTICIPATION PROOF

List of authorities informed:

Stakeholders & Organisation	Name	Email
Eastern Cape Department of Transport	Chabana Keketso	Keketso.Chabana@ectransport.gov.za
Amathole DM	Admmayo R.	admmayor@amathole.gov.za
Amathole DM	Nontyatyambo D.	nontyatyambod@amathole.gov.za
Amathole DM MM office	Joelene L.	joelenel@amathole.gov.za
Amathole Environment	L.Mafumbu	mafumbul@amathole.gov.za
Amathole District Municipality (ENV Manager)	Pamela	pamela@amathole.gov.za
Amathole District Municipality (Community services)	Ms Yolisa Mniki	yolisam@amathole.gov.za
Chris Hani DM MM	Ms Y Sinyanya	ysinyanya@chrishanidm.gov.za
Chris Hani DM MM Secretary	Yonela Booi	ybooi@chrishanidm.gov.za
Chris Hani DM Environmental Manager		malefu@jgdm.gov.za
Mr Makhaya Cecil Kibi	Mnquma Local Municipality - Community Services	kibimc@webmail.co.za
S Joni	Mnquma Local Municipality -Town Planning	khanyojoni@gmail.com
Miss Asanda Masinyane	Mnquma - Environmental Officer	amasinyane@mnquma.gov.za
Ms Yolisa Mdingi	Mnquma Local Municipality - Municipal Manager	yolisa.mdingi@ecdsd.gov.za
Mbhashe LM MM	Mr S.V Poswa	mzimase.dyomvana@gmail.com
Engcobo LM Manager	Mr Maxwell Moyo	lammax1886@gmail.com
Engcobo Roads Dept	Obose C.	obosec@engcobolm.org.za
Engcobo LM	Williams G.	williamsg@engcobolm.org.za
Engcobo Ward 4 councilor	Cllr E Macingwane	ekhona.macingwane@gmail.com
Mbhashe Ward 5 councilor	NTOMBENENE O. SOGAYISE	
Councilor	F. Mtabebeko	fmtabebeko@gmail.com
Dumisani Sibayi	SAHRA	dsibayi@sahra.org.za
ECPHRA	Sello Mokhanya	s.mokhanya@ecphra.org.za
ECPHRA	Mzikayise L Zote	mlzote@ecphra.org.za
DEDEAT (Amathole)	Gerry Pienaar	Gerry.pienaar@dedea.gov.za
DEDEAT (Amathole)	Hlomela Hanise	Hlomela.Hanise@dedea.gov.za
DEDEAT (Chris Hani)	Cira Ngetu	cira.Ngetu@deaet.ecape.gov.za

DEDEAT (Regional office)	Siyabonga Gqalangile	siyabonga.gqalangile@dedea.gov.za
	Cecilia Gyan	cecilia.gyan@dedea.gov.za
DWS	Lizna Fourie	Fouriel4@dws.gov.za
DMR	Watkins D.	deidre.watkins@dmr.gov.za
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List of authorities from whom comments have been received:

Comments regarding the draft BAR were received from DEDEAT on the 10 February 2020 No other comments have been received to date. Refer to Appendix E for all Public Participation documents.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES	~~NO~~

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

Comments regarding the draft BAR were received from DEDEAT on the 10 February 2020. Refer to Appendix E6: Issues and Response Trail for a summary of all comments received to date.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Refer to Appendix E6: Issues and Response Trail for a summary of all comments received to date.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

Refer to Appendix E6: Issues and Response Trail for a summary of all comments received to date.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

PLEASE APPENDIX G FOR THE IMPACT ASSESSMENT METHODOLOGY USED. THE DETAILED IMPACT ASSESSSMENT IS PROVIDED IN THE TABLES BELOW.

Table 1: Mind Map of Issues identified during all phases of the proposed development

THEME	POTENTIAL ISSUES	SOURCE OF ISSUE	POTENTIAL RECEPTORS	PHASE			ASSESSMENT ACTIONS
				PLANNING AND DESIGN	CONSTRUCTION	OPERATIONAL	
Environmental policy	Legal and policy compliance	• Licensing and Authorisations	• MBSA	X	X		General EIA and obtaining authorisation from relevant CA
Built environment	Site Establishment	• Siting and placement • Footprint creep	• Terrestrial environment • Aquatic environment • Heritage and paleontological resources • Surrounding landowners	X	X		General EIA
	Bulk services and infrastructure	• Siting and placement • Earthworks • Accidental leakages • Maintenance	• Terrestrial environment • Aquatic environment • Heritage and paleontological resources		X	X	General EIA
	Material Stockpiling	• Siting and placement • Inadequate management of stockpiles	• Terrestrial environment • Aquatic environment • Surrounding landowners	X	X		General EIA
	Stormwater management	• Inappropriate infrastructure and design • Poor maintenance	• Terrestrial environment • Aquatic environment	X	X	X	General EIA
	Waste Management	• Poor planning for storage, handling and disposal of general waste • Construction rubble • General refuse	• Terrestrial environment • Aquatic environment • Surrounding landowners	X	X		General EIA

THEME	POTENTIAL ISSUES	SOURCE OF ISSUE	POTENTIAL RECEPTORS	PHASE			ASSESSMENT ACTIONS
				PLANNING AND DESIGN	CONSTRUCTION	OPERATIONAL	
	Hazardous substances	• Poor planning for storage, handling and disposal of hazardous fuels and construction waste • Spillages	• Terrestrial environment • Aquatic environment • Surrounding landowners		X		General EIA
Aquatic environment	Pollution of the watercourse	• Accidental chemical spills • Inappropriate waste management	• Aquatic environment	X			Aquatic and Vegetation Impact Assessment
	Loss of aquatic fauna	• Inappropriate planning • Construction activities	• Aquatic environment	X	X		
	Loss of soil quality	• Construction activities	• Terrestrial Environment		X		
	Natural vegetation	• Insufficient planning • Inappropriate demarcation of construction footprint • Unauthorised vegetation clearance	• Flora in development footprint	X	X		
	Floral biodiversity	• Unauthorised vegetation clearance	• Flora within the development footprint	X	X		
Vegetation	Species of Conservation Concern (SCC)	• Unauthorised vegetation clearance	• SCC in development footprint	X	X		

THEME	POTENTIAL ISSUES	SOURCE OF ISSUE	POTENTIAL RECEPTORS	PHASE			ASSESSMENT ACTIONS
				PLANNING AND DESIGN	CONSTRUCTION	OPERATIONAL	
	Loss/ Fragmentation of habitats	• Unauthorised vegetation clearance	• Habitats within development footprint		X		
	Establishment of alien vegetation	• Unauthorised vegetation clearance	• Disturbed terrestrial and aquatic areas		X	X	
	Establishment of alien vegetation Job creation	• Inappropriate planning for management/ rehabilitation of alien vegetation	• Disturbed terrestrial and aquatic areas • Local community • General public	X	X	X	
	Establishment of alien vegetation	• Construction activities	• Disturbed terrestrial and aquatic areas • Local community • General public • Surrounding landowners and general public		X	X	
	Job creation Traffic flow	• Traffic diversions			X	X	
Socio-economic	Health and safety	• Inappropriate demarcation of the construction site • Construction activities • Obstruction of traffic	• Construction workers • Surrounding community	X	X	X	General EIA

THEME	POTENTIAL ISSUES	SOURCE OF ISSUE	POTENTIAL RECEPTORS	PHASE			ASSESSMENT ACTIONS
				PLANNING AND DESIGN	CONSTRUCTION	OPERATIONAL	
	Air quality and dust control	• Vegetation clearance • Earthworks • Construction activities	• Surrounding landowners and community		X		
	Visual	• Construction activities	• Surrounding landowners and community		X		
	Noise	• Construction activities	• Surrounding landowners and community		X		
	On-site fire risk	• Poor planning for emergency response procedures • Flammable goods	• Terrestrial environment • Surrounding landowners and general public	X	X		
	Loss of cultural, heritage and paleontological resources	• Insufficient planning • Siting and placement • Earthworks •	• Heritage resources and Paleontological findings	X	X		
	Loss of cultural, heritage and paleontological resources.	• Insufficient Planning • Siting and Placement	• Heritage Resources and Paleontological findings.		X		
Heritage and paleontological environment	Inadequate rehabilitation and maintenance	• Inadequate planning and provisioning • Lack of maintenance of infrastructure	• Aquatic and terrestrial environment • Surrounding landowners and general public		X		Heritage impact assessment

THEME	POTENTIAL ISSUES	SOURCE OF ISSUE	POTENTIAL RECEPTORS	PHASE			ASSESSMENT ACTIONS
				PLANNING AND DESIGN	CONSTRUCTION	OPERATIONAL	
Rehabilitation and maintenance		•	•				General EIA

Table 2.1: Assessment of impacts during the Planning and Design Phase.

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
PLANNING AND DESIGN PHASE													
Environmental Policy													
Legal and policy compliance	During the planning and design phase, failure to adhere to existing policies and legal obligations and obtain the necessary authorisations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	Negative	Direct	Severe	National	Long-term	Possible	Reversible	Resource will be partly lost	Achievable	HIGH	• All relevant legislation and policy must be consulted and the proponent must ensure that the project is compliant with such legislation and policy. • These should include (but are not restricted to): NEMA, Eastern Cape Biodiversity Conservation Plan (ECBCP), Local Municipal bylaws. • All relevant permits and authorisations including Water Use Licenses, Building Plan Approvals and plant removal permits must be in place prior to commencement of construction.	LOW
Built Environment													
Site establishment	During the planning and design phase, failure to plan for suitable areas for the construction site establishment may result in unnecessary degradation of the surrounding terrestrial, aquatic and human environment.	Negative	Direct, Cumulative	Severe	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• The design and location of the construction site must ensure minimal impacts to the aquatic environment and residential houses surrounding the site.	LOW
Waste management	During the planning and design phase, failure to plan for the storage, handling and disposal of general and hazardous waste during the construction phase may lead to littering and pollution of the surrounding environment.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• An appropriate waste management plan for handling onsite general and hazardous waste during the construction phase must be developed and implemented.	LOW
Aquatic environment													
Stormwater management	During the planning and design phase inappropriate design of stormwater structure may result in increased levels of erosion, sedimentation and pollution of the watercourses.	Negative	Direct	Severe	Study area	Long-term	Possible	Reversible	Resource will not be lost	Achievable	HIGH	• Appropriate stormwater structures must be designed to minimise erosion and sedimentation of watercourses. • All road sections situated on slopes must incorporate stormwater diversion. • Stormwater design must be in line with and DWS requirements.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
PLANNING AND DESIGN PHASE													
Changes to fluvial geomorphology and hydrology	During the planning and design phase inappropriate design of bridge and culvert infrastructure may result in scouring of the river bed and changes to the hydrology of the watercourses.	Negative	Direct	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Achievable	MODERATE	• Scour countermeasures must be incorporated in the design of all bridges and all culverts in the study areas. • All culverts must be designed in such a manner so as to not impede or divert natural baseflows or increase upstream flood inundation. • Box culverts should be selected over pipe culverts, as they are less restrictive in terms of flow and also aid in reducing habitat fragmentation. • Bridges should span the entire width of the river if the width of the river is sufficiently narrow. • The number of piers placed within the river should be limited to as much as possible to limit the disturbance to the bed and banks of the river. • All culverts/bridges should be designed to be above the 1:100-year floodline or major flood event.	LOW
Vegetation													
Natural vegetation	During the planning and design phase the inappropriate design, demarcation and road alignment of the road upgrade may lead to the unnecessary loss of natural vegetation and habitat supporting other taxonomic groups.	Negative	Direct, Indirect, Cumulative	Severe	Localised	Permanent	Probable	Irreversible	Resource will be lost	Easily Achievable	MODERATE	• The design and layout of the road upgrade and associated mining sites must avoid unnecessary loss of natural vegetation.	LOW
Control of alien species	During the planning and design phase the failure to plan for the removal and management of alien vegetation could result in the invasion of alien vegetation in sensitive areas during the construction and operational phases.	Negative	Indirect	Moderate	Study area	Long-term	Probable	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• A Rehab and Alien Vegetation Management Plan must be developed to mitigate the establishment and spread of undesirable alien plant species during all phases of the project.	LOW
	During the planning and design phase, the failure to plan for the rehabilitation of impacted areas may lead to the establishment of alien vegetation.	Negative	Indirect	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE		LOW
Socio-economic													

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
PLANNING AND DESIGN PHASE													
Health, safety and crime	During the planning and design phase, failure to plan for potential health and safety risks (including natural disasters) during the construction phase may result in the harm of labourers, staff, surrounding landowners and the public.	Negative	Direct, Indirect	Moderate	Study area	Long-term	Possible	Irreversible	Resource will be lost	Achievable	MODERATE	• A health and safety plan in terms of the Occupational Health and Safety Act (Act No 85 of 1993) must be drawn up by and HSE officer prior to construction to ensure workers safety.	LOW
On-site fire risk	During the planning and design phase, failure to plan for accidental fires during the construction phase could result in potential harm to the public and/or surrounding landowners and their property.	Negative	Direct	Severe	Study area	Medium-term	Possible	Irreversible	Resource will be lost	Easily Achievable	MODERATE	• An Emergency Preparedness Plan must be designed for the construction phase prior to construction commences and	LOW
Rehabilitation and maintenance													
Inadequate rehabilitation and maintenance	During the planning and design phase, inadequate planning for rehabilitation and maintenance of infrastructure post construction, could lead to degradation of the study area and surrounding areas.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	MODERATE	• During the planning and design phase, a Rehabilitation Plan must be developed and implemented during and after construction. • Regular monitoring of implementation of this plan for the rehabilitation of disturbed areas must be conducted throughout the duration of the construction phase.	LOW

Table 2.2. Assessment of impacts during the Construction Phase

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Environmental Policy													
Legal and policy compliance	During the construction phase, failure to adhere to existing policies and legal obligations and obtain the necessary authorisations could lead to the project conflicting with local, provincial and national policies, legislation, etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	Negative	Direct	Severe	National	Long-term	Possible	Reversible	Resource will be partly lost	Achievable	HIGH	• The Applicant must employ an independent Environmental Control Officer (ECO) for the duration of the construction phase to audit the contractor's compliance with the specifications in the EA, EMPr and any other permits/authorisations.	LOW
Built Environment													
Site establishment	During the construction phase, inappropriate demarcation of the construction site may result in the unnecessary degradation of the surrounding environment.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• The construction site must be demarcated and communicated with the contractor prior to commencement of construction. All No-Go areas must be clearly demarcated during the planning and design. • Construction must only take place within the demarcated construction footprint. • Any construction outside of the demarcated site must be approved by the ECO before construction in this area takes place.	LOW
Bulk services and infrastructure	During the construction phase incorrect siting and placement of associated infrastructure and construction works may result in impacts on the surrounding environment and watercourse.	Negative	Direct, indirect	Moderate	Localised	Long-term	Possible	Reversible	Resource will be partly lost	Achievable	MODERATE	• Construction works and infrastructure must be kept within the demarcated construction footprint. • Regular monitoring of construction works and placement of the associated infrastructure for the road upgrade must be conducted by a qualified ECO throughout the duration of construction.	LOW
Material stockpiling	During the construction phase, inappropriate location and management of material stockpiles may result in erosion of materials which can cause sedimentation in the watercourses.	Negative	Direct. Indirect	Moderate	Localised	Short-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• Material stockpiles must be located 50m away from any watercourse, and they must be monitored for erosion and alien vegetation. • Material stockpiles locations must be approved by the ECO.	LOW
Stormwater management	During the construction phase, failure to implement effective stormwater management measures may result in increased surface soil erosion, and, contamination of the watercourse.	Negative	Direct, Indirect	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• A Stormwater Management Plan must be developed in the planning and design phase and must be implemented throughout the duration of construction. • Berms and swathes must be placed in areas that may be prone to erosion. • Temporary cut-off drains and berms may be required to capture storm water and promote infiltration.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Waste management	During the construction phase, the generation of construction waste such as building rubble, excess concrete and general waste created by workers will be generated. The inappropriate disposal and management of construction waste may result in the pollution of the watercourse and surrounding environment.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE	• A Waste Management Plan for handling onsite waste during the construction phase must be developed and implemented. • All general waste must be disposed of in bins/waste skips labelled "general waste". • Sufficient waste bins must be provided throughout the construction site for collecting waste. • All general waste collected on site must be disposed of at a licensed general waste disposal site. • Adequate sanitary facilities must be provided for construction workers and they must be properly secured to the ground. • Maintenance of the chemical toilets should be done on a regular basis to prevent any leakages.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Hazardous substances	During the construction phase, spillages of hazardous substances from inappropriate handling, transport and use of the substances may result in pollution of the surrounding environment and watercourse as well as soil contamination. Spillage of hazardous substances may also pose a health and safety risk to the staff on site	Negative	Direct, Indirect	High	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Easily Achievable	HIGH	• Any storage tanks containing hazardous materials (ie fuel, diesel) must be placed in bunded containment areas with sealed surfaces and the capacity of the bunded containment areas must be 110% the volume of the storage tanks within it. • Barrels, bitumen must be stored in a secured area and all used barrels must be properly maintained and secured. • Cement and concrete must not be mixed directly on the ground, or during rainfall events when the potential for transport of pollutants to watercourses is the greatest. • Used cement bags should be collected and stored in containers to prevent wind-blown cement dust and water contamination. • Mixed cement/concrete must not be allowed to flow into any watercourses. • Drip trays must be placed under stationary construction machinery overnight to avoid soil contamination from oil and fuel leaks. • Absorbent materials in the form of a spill kit must be provided on site. • Contaminated soil must either be excavated or treated on-site, depending on the nature and extent of the spill. • The ECO must determine the precise method of treatment of polluted soil. This could involve the application of soil absorbent materials or oil-digestive powders to the contaminated soil. • Contaminated remediation materials must be carefully removed from the area of the spill so as to prevent further release of petrochemicals to the environment and stored in suitable containers until appropriate disposal. • All hazardous waste generated on site must be placed in a temporary impermeable bunded containment area which must be disposed of at a hazardous landfill site or be collected by the appropriate service provider. • Proof of receipt of hazardous waste by a licensed service provider must be maintained on the site.	LOW
Aquatic and Wetland Environment													

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Scheduling of construction	Inappropriate construction scheduling that does not take into account seasonal requirements of the aquatic environment could lead to short-term impacts on the aquatic environment such as excessive sediment mobilization.	Negative	Indirect	Moderate	Study area	Short term	Possible	Reversible	Resource will not be lost	Achievable	MODERATE	• Wherever possible, construction activities should be undertaken during the driest part of the year to minimize downstream sedimentation due to excavation, etc. • When not possible, suitable stream diversion structures must be used to ensure the river is not negatively impacted by construction activity.	LOW
Stormwater management	During the construction phase the inappropriate routing of stormwater runoff may lead to construction debris entering watercourses and sedimentation and erosion of surrounding watercourses, adversely affecting the aquatic environment	Negative	Direct	Moderate	Localised	Short-term	Possible	Reversible	Resource will not be lost	Achievable	MODERATE	• Stormwater must be managed effectively to minimize the ingress of construction debris and sediment-laden stormwater into surrounding watercourses.	LOW
Material stockpiling	During the construction phase, stockpiling of construction materials within moderate sensitivity areas could result in erosion and mobilisation of the materials into the nearby watercourses, resulting in sedimentation and a decrease in water quality and aquatic habitat.	Negative	Direct, Indirect	Moderate	Localised	Medium-term	Possible	Reversible	Resource will not be lost	Achievable	MODERATE	• No construction material or stockpiles must be stored within the moderate sensitivity area indicated in the Aquatic and Wetland Assessment Report. • Stockpiles must not be placed within the moderate sensitivity area indicated in the Aquatic and Wetland Assessment Report. • Stockpiles must be monitored for erosion and mobilisation of materials towards watercourses. If this is noted by an ECO, suitable cut-off drains or berms must be placed between the stockpile area and the nearest watercourse. • Stockpiles should not exceed 1.5 m in height. • Stockpiles should be covered during windy periods.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Invasion of alien species	• Failure to remove and manage alien vegetation could result in the invasion of alien vegetation in riparian areas during the construction and operation phase. This would have an adverse impact on the aquatic ecosystem. • During the construction phase, the removal of existing vegetation creates 'open' habitats that will inevitably be colonised by pioneer plant species. While this is part of a natural process of regeneration, which would ultimately lead to the re-establishment of a secondary vegetation cover, it also favours the establishment of undesirable alien species in the area. These species colonise areas of disturbance and once established, they are typically very difficult to eradicate and can pose a threat to the ecosystem. Failure to monitor alien vegetation during construction could lead to infestations.	Negative	Indirect	Moderate	Localised	Medium-term	Probable	Reversible	Resource will not be lost	Achievable	MODERATE	• A Rehabilitation and Alien Vegetation Management Plan must be developed and implemented during to construction activities, to reduce the establishment and spread of undesirable alien plant species. • Construction vehicles and machinery must not encroach into areas outside/surrounding the planned project footprint. • Alien plants must be eradicated from the impacted areas as they appear and the transformed area monitored. • Monitor the project area for any new growth of invasive plants until completion of construction. • Short-term monitoring must take place for alien invasive plant species growth for a period of 12 months after construction has been completed should be conducted. • The Alien Vegetation Management Plan must be approved by the appointed ECO prior to implementation. • Regular monitoring of the implementation of this plan for the rehabilitation of disturbed areas must be conducted by the appointed ECO.	LOW
Species of Conservation Concern	Prior to construction, the inadequate planning for search and rescue operations and permitting for the removal of any SCC may result in non-compliances being issued and the unintended loss of SCC.	Negative	Direct, Cumulative	Moderate	Localised	Long-term	Possible	Irreversible	Resource will be partly lost	Easily Achievable	HIGH	• A walkthrough must be done by a suitably qualified individual to confirm the occurrence of SCC's in the study area. • All plant SCC must be relocated to outside the construction footprint prior to commencement of activities. • The relevant permits must be obtained from the competent authority in order to remove any SCC.	LOW
Disturbance of aquatic and wetland vegetation and habitat	During the construction phase, indiscriminate removal or unnecessary encroachment into riparian and wetland vegetation may lead to disturbance of the aquatic ecosystem.	Negative	Direct, Indirect	Severe	Study area	Medium-term	Possible	Reversible	Resource will not be lost	Achievable	HIGH	• Removal of any riparian and wetland vegetation must take place under the supervision of an ECO. • Removal of riparian zone alien vegetation should be prioritized. • Banks must be artificially stabilised as soon as possible if riparian vegetation is removed. • Vehicles and machinery must not encroach into riparian zone areas outside/surrounding road upgrade footprint.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Changes to fluvial geomorphology and hydrology	During the construction phase, inappropriate placement of infrastructure, earthworks within the watercourse and prolonged coffer dams/diversion structures may alter natural flow patterns	Negative	Direct, cumulative	Severe	Localised	Medium-term	Possible	Reversible	Resource will not be lost	Achievable	HIGH	• Damage to bed and banks of the watercourses must be avoided other than to complete specific works within the watercourse. • No material, sediment or debris from bridge/culvert construction must be left or allowed to build up in the watercourse. • Coffer dams and any temporary diversions should not be in place for more than 30 days if possible. • Construction activities within watercourses should take place within the dry season, when the flows are at their lowest, where possible.	LOW
Erosion and sedimentation	During the construction phase, vegetation clearance and lack of implementation of erosion control measures may result in deterioration of the surrounding habitat as a result of erosion of banks, slopes and bed of watercourse and resultant sedimentation.	Negative	Indirect, Cumulative	Severe	Study area	Long-term	Probable	Reversible	Resource will not be lost	Achievable	HIGH	• Vegetation clearing during construction must be kept a minimum and only to the site footprint. • Erosion controls and sediment trapping measures must be put in place. • All trenches/excavations must be backfilled and all disturbed areas backfilled, compacted and revegetated. • Disturbed areas must be constantly monitored for erosion channels and these must be rehabilitated immediately.	LOW
Vegetation													
Natural vegetation	During the construction phase the clearing of natural vegetation outside the approved development footprint will lead to the unnecessary loss of natural vegetation including the loss of endangered Mthatha Moist Grassland vegetation and habitat for other taxonomic groups.	Negative	Direct, indirect, cumulative	Severe	Study area	Permanent	Possible	Reversible	Resource will be partly lost	Achievable	MODERATE	• The construction footprint and other adjacent areas that require clearing of vegetation, must be surveyed and demarcated prior to construction commencing. • No construction or vegetation clearing activities must occur outside the demarcated footprint. • Construction activities must be preferred in areas where degraded natural vegetation is found. • Where vegetation has been cleared, site rehabilitation in terms of soil stabilization and vegetation must be undertaken. • Cleared vegetation must not be piled on top of natural vegetation but must be stockpiled temporarily on bare ground and removed to a registered landfill site. Alternatively, cleared vegetation may be mulched and used as ground cover during rehabilitation. • The contractor's staff must not harvest any natural vegetation.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Species of Conservation Concern (SCC)	During the construction phase, construction activities associated with the upgrading of the road as well as mining activities may permanently destroy or result in the loss of plant and animal SCC present on site.	Negative	Direct	Severe	Localised	Permanent	Probable	Irreversible	Resource be partly lost	Easily Achievable	HIGH	• If SCC are discovered during construction, a search and rescue operation must be coordinated by the ECO and contractor prior to commencement of construction activities. • All SCC impacted by construction activities must be conserved and rescued. • All rescued SCC must be transplanted to a suitable habitat or nursery for the duration of the construction phase; • All rescued SCC must be replanted within the site where it was originally found or in close proximity during rehabilitation.	LOW
Animal disturbances and mortalities	During the construction phase, construction activities, vehicles, crew and materials may result in animal fatalities through direct fatalities, habitat destruction, opportunistic hunting, collisions, accidents or baiting and trapping.	Negative	Direct	Severe	Localised	Permanent	Possible	Irreversible	Resource will be partly lost	Achievable	HIGH	• All staff must be trained on site regarding the proper management and response should animals be encountered. • If deemed necessary, a specialist must be appointed to search and relocate animals in the construction region prior to work commencing, • No hunting, baiting or trapping of animals must be allowed on site or surrounding areas.	LOW
Loss/ Fragmentation of habitats	During construction, the loss of vegetation coincides with the loss of faunal habitat, reducing breeding and rearing locales.	Negative	Direct	Moderate	Study area	Long-term	Possible	Irreversible	Resource will be partly lost	Achievable	MODERATE	• Vegetation clearance and aquatic habitats must be avoided as far as possible.	LOW
Establishments of alien plant species	During the construction phase, the removal of natural vegetation creates open habitats that favour the establishment of undesirable alien plant species in areas that are typically very difficult to eradicate and may pose a threat to neighbouring ecosystems	Negative	Indirect	Severe	Study area	Long-term	Probable	Reversible	Resource will not be lost	Achievable	HIGH	• The approved Rehab Alien Vegetation Management Plan must be implemented during the construction phase to reduce the establishment and spread of undesirable alien plant species. • Alien plants must be removed from the site through appropriate methods such as hand pulling, application of chemicals, cutting etc. as in accordance to the NEMBA: Alien Invasive Species Regulations.	LOW
	During the construction phase poor rehabilitation of disturbed areas may lead to the permanent degradation of ecosystems as well as allow alien vegetation species to expand.	Negative	Direct, indirect, cumulative	Moderate	Localised	Long-term	Probable	Reversible	Resource may be partly lost	Achievable	MODERATE	• All temporarily impacted areas must be rehabilitated with indigenous vegetation as soon as construction in the particular area or phase of work is complete, i.e. rehabilitation is on-going throughout construction. • Restoration must be conducted as per the approved Rehabilitation Erosion and Alien Vegetation Management Plans.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Socio-economic													
Job creation	During the construction phase, there is the potential for temporary job opportunities to be created.	Positive	Direct, Indirect	Moderate	Municipal	Short-term	Definite	Reversible	Resource will not be lost	Easily Achievable	MODERATE POSITIVE	• Where possible construction resources must be purchased from local companies.	MODERATE POSITIVE
Traffic flow	During the construction phase, there is likely to be an increase in traffic volumes to and from the site which may result in vehicle/pedestrian collisions and degrade the existing road conditions.	Negative	Direct	Moderate	Study area	Short-term	Definite	Reversible	Resource will not be lost	Easily achievable	MODERATE	• A traffic management plan must be implemented • The contractor must properly mark all access roads. Markers must show the direction of travel to which the road leads. Roads not to be used must be marked with a "NO ENTRY" sign. Where required, speed limits must be indicated on the roads. All speed limits must be strictly adhered to at all time.	LOW
Health and safety	During the construction phase, there is potential for injuries to workers during construction activities. Should construction sites not be adequately cordoned off and dangerous areas demarcated, there is also potential for injuries to the general public.	Negative	Direct	Severe	Localised	Long-term	Possible	Reversible	Resource will not be lost	Achievable	HIGH	• Environmental and safety inductions must be provided to all staff before they are permitted on the construction site. • Dangerous sites (e.g. open excavations) must be cordoned off and no public access allowed. • Contractors must have emergency telephone numbers on site. • A health and safety file is to be kept on site and all incidents must be recorded and reported to the designated safety officer by the contractor.	LOW
	During the construction phase there in an increase in the potential for road accidents to occur as the usual flow of traffic will be obstructed by construction activities.	Negative	Direct	Severe	Localised	Long-term	Possible	Reversible	Resource will not be lost	Achievable	HIGH	• Speed limit and other road signage must be instituted as required. • Traffic calming measures must be implemented throughout the duration of the construction phase.	LOW
Air quality and dust control	During the construction phase, construction vehicles and construction activities could result in the generation of significant dust during windy conditions.	Negative	Direct	Moderate	Study area	Short-term	Definite	Reversible	Resource will not be lost	Achievable	MODERATE	• During windy periods un-surfaced and un-vegetated areas must bestabalized or dampened down. • Vegetation must be retained where possible as this will reduce dust travel. • Any complaints or claims emanating from dust issues must be attended to immediately and noted in the complaints register.	LOW
Visual	During the construction phase construction activity and the presence and use of large machinery on site and along access roads will result in a visual disturbance of the surrounding landscape.	Negative	Direct	Moderate	Study area	Short-term	Definite	Reversible	Resource will not be lost	Achievable	LOW	• All construction activity should take place during daylight working hours (i.e. 7 – 5pm). • All construction activity and equipment must be limited to the demarcated areas. • Good housekeeping must be maintained throughout the construction work areas to limit the visual intrusion of the construction activities.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
Noise	During the construction phase, construction activities could result in an increase in ambient noise levels on site and affect surrounding landowners, road users and the general public.	Negative	Direct	Moderate	Study area	Short-term	Definite	Reversible	Resource will not be lost	Achievable	MODERATE	• Activities which include the movement of construction vehicles and the operation of machinery should be restricted to normal working hours (07:00am – 17:00pm). • There must be a complaints register on site for nearby residents to make complaints. These must be addressed and recorded.	LOW
On-site fire risk	During the construction phase inadequate attention to fire safety awareness and fire safety equipment could result in uncontrolled fires, posing a threat to the surrounding environment and residential properties.	Negative	Direct	Severe	Study area	Long-term	Possible	Irreversible	Resource will be lost	Easily Achievable	HIGH	In order to reduce the risk of fires: • All flammable substances must be stored in dry areas which do not pose an ignition risk to the said substances. • Smoking must not be permitted near flammable substances. • No open fires must be allowed on site. • Fire extinguishers must be available onsite.	LOW
Cultural Environment													
Heritage and paleontological resources	Impacts to Iron Age site located within the project area	Negative	Direct	Severe	Localised	Permanent	Probable	Irreversible	Resource will be lost	Achievable	MODERATE	• All previously undetected heritage remains / graves must be located as soon as possible after disturbance so as to maximize the chances of successful rescue/mitigation work. • A conservation buffer of at least 20m around the site should be implemented and the area should be monitored on a frequent basis by an informed ECO in order to avoid the destruction of existing and previously undetected heritage remains.	LOW
	Impacts to the possible displacement or destruction of Historical Period heritage structures or features located within the project area	Negative	Direct	Severe	Localized	Permanent	Probable	Irreversible	Resource will be lost	Achievable	MODERATE	• Implement a heritage conservation buffer of at least 20m around the heritage resource, and/or redesign the proposed road alignment to avoid the heritage resource if possible. • These sites must be frequently monitored by the ECO. • The necessary alteration and/or destruction permits must be obtained from the relevant Heritage Resources Authorities prior to site sampling and destruction, should it be required. Destruction of these sites may be permitted if, and when required.	LOW

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
CONSTRUCTION PHASE													
	During the construction phase, earthworks could impact burial sites in close proximity to the road reserve resulting in the displacement and/or destruction of burials in the project area.	Negative	Direct	Severe	Localized	Permanent	Probable	Irreversible	Resource will be lost	Achievable	HIGH	• Human burials occurring in close vicinity of the proposed road upgrade alignment must be fenced off and conserved and a conservation buffer of at least 50m be maintained around the heritage receptors. • Where 50m buffer is not possible due to the existing alignment of the road, a 10m conservation buffer around burial sites should be implemented on the condition that a temporary construction barricade is erected around (but no closer than 3m) from affected graves. • Alternatively, the burials must be relocated according to the applicable social and statutory requirements, should impact prove inevitable. • **Grave site BP-12 (S31.83082044; E28.19396672, See page 62 of the Archaeological Impact Assessment Report) must be relocated as it will fall within 3m from the proposed toe of the embankment cut.** • Site management (Fencing, access control), as well as strict monitoring by the ECO should be implemented. • Should impact on any human burial prove inevitable, full grave relocations are recommended for these burial grounds. This measure must be undertaken by a qualified archaeologist, and in accordance with relevant legislation, permitting, statutory permissions and subject to any local and regional provisions and laws and by-laws pertaining to human remains. A full social consultation process must occur in conjunction with the mitigation of cemeteries and burials.	LOW
Rehabilitation and maintenance													
Inadequate rehabilitation	During the construction phase, inadequate implementation of rehabilitation measures in disturbed areas may lead to the degradation of the surrounding environment and establishment of alien invasive plant species.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	MODERATE	• The rehabilitation plan must be implemented during and after the construction has been completed. • All temporarily disturbed areas must be rehabilitated with indigenous vegetation as soon as construction in the particular area or phase of work is complete, i.e. rehabilitation is on-going throughout construction as phases have been completed. • All impacted areas must be restored as per the EMPr requirements.	LOW

Table 2.3: Assessment of impacts during the Operation phase

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
OPERATION PHASE													
Environmental Policy													
Legal and policy compliance	During the Operational Phase, failure to implement the operational requirements as stated in the EA and any other permits/licenses that may be issued could result in the failure of the project and could negatively impact the surrounding environment.	Negative	Direct	Severe	National	Long-term	Possible	Reversible	Resource will be partly lost	Achievable	HIGH	• All relevant legislation and policy must be consulted, and the proponent must ensure that the project is compliant with such legislation and policy. The operational conditions outlined in the EA must be adhered to.	LOW
Built Environment													
Stormwater management	During the operational phase, failure to maintain effective stormwater management measures may result in increased surface soil erosion and contamination of the watercourse.	Negative	Direct	Moderate	Study area	Long-term	Probable	Reversible	Resource will not be lost	Easily achievable	MODERATE	• Regular maintenance of the stormwater structures associated with the road realignments must continue throughout the entire duration of the operational phase.	LOW
Aquatic environment													
Stormwater management	During the operation phase, inappropriate stormwater infrastructure may result in adverse impacts on the aquatic environment such as erosion and sedimentation	**Negative**	**Direct**	**Moderate**	**Localised**	**Medium-term**	**Possible**	**Reversible**	**Resource will not be lost**	**Achievable**	MODERATE	• Stormwater infrastructure must be maintained and monitored for effectiveness with respect to controlling and minimising erosion and sedimentation of watercourses.	**LOW**
Invasion of alien species	During the operational phase failure to monitor the effectiveness of a rehabilitation and alien vegetation removal plan post-construction could result in alien plant invasion within watercourses	**Negative**	**Direct**	**Moderate**	**Localised**	**Medium-term**	**Possible**	**Reversible**	**Resource will not be lost**	**Achievable**	MODERATE	• An alien vegetation removal and rehabilitation plan must be implemented post-construction. • The effectiveness of this plan should be monitored on a biannually for the first year following construction or until such time as the ECO deems the rehabilitation sufficient.	**LOW**
Maintenance	During the operation phase inadequate maintenance of culverts, bridges and the road surface may lead to obstruction of flow in the watercourses	**Negative**	**Indirect**	**Moderate**	**Study area**	**Long-term**	**Possible**	**Reversible**	**Resource ill not be lost**	**Moderate**	MODERATE	• All infrastructures such as culverts, bridges etc. must be maintained and monitored on a regular basis to check for failure of infrastructure.	**LOW**
Vegetation													

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
OPERATION PHASE													
Establishment of alien vegetation	During the operational phase, the poor rehabilitation of disturbed areas may lead to the permanent establishment of alien vegetation.	Negative	Direct, indirect	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Achievable	MODERATE	• The approved Alien Vegetation Management Plan must be implemented biannually for a year after construction, to reduce the establishment and spread of undesirable alien plant species post construction. • Alien plants must be removed from the site through appropriate methods such as hand pulling, application of chemicals, cutting etc. as in accordance to the NEMBA: Alien Invasive Species Regulations.	LOW
Inadequate rehabilitation and maintenance	During the operation phase inadequate rehabilitation of disturbed areas and lack of maintenance of infrastructure may lead to the degradation of the surrounding environment and establishment of alien invasive vegetation.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable			
Socio-economic													
Traffic flow	During the construction phase, there is likely to be an increase in traffic volumes to and from the site which may result in vehicle/pedestrian collisions and degrade the existing road conditions	Positive	Direct	Moderate	Study area and surrounds	Long-term	Definite	Irreversible	Resource will not be lost	Easily Achievable	MODERATE POSITIVE	• Measures to accommodate pedestrians should be in place and continually enforced. • Traffic calming measures should be in place along approaching roads.	MODERATE POSITIVE
Health and safety	During the operational phase, the road upgrade will result in improved road safety as well as the safety of pedestrians.	Positive	Direct	Moderate	Study area and	Long-term	Definite	Irreversible	Resource will not be lost	Easily Achievable	MODERATE POSITIVE	• No mitigation required	MODERATE POSITIVE
Rehabilitation and maintenance													
Inadequate rehabilitation and maintenance	During the operation phase inadequate rehabilitation of disturbed areas and lack of maintenance of infrastructure may lead to the degradation of the surrounding environment and establishment of alien invasive vegetation.	Negative	Direct, Indirect	Moderate	Study area	Medium-term	Possible	Reversible	Resource will be partly lost	Easily Achievable	MODERATE	• The rehabilitation of the disturbed areas must be monitored for a period of 6-12 months after completion of construction activities.	LOW

Table 2.4. Assessment of the No-Go alternative.

POTENTIAL ISSUES	SOURCE OF ISSUE	NATURE	TYPE	CONSEQUENCE OF IMPACT	EXTENT OF IMPACT	DURATION OF IMPACT	PROBABILITY OF IMPACT	REVERSIBILITY	IRREPLACEABLE LOSS	MITIGATION POTENTIAL	SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURES	SIGNIFICANCE OF IMPACT WITH MITIGATION
	(SIGNIFICANCE WITHOUT MITIGATION)											(SIGNIFICANCE WITH MITIGATION)	
NO-GO													
Aquatic environment													
Status-quo – No road upgrade and mining	Should the project not proceed then the current land use will remain the same. In this instance, the likelihood of potential disturbance and contamination of surrounding watercourses is reduced.	Positive	Direct	Moderate	Study area	Medium - term	Possible	Completely reversible	Resource will not be lost	Achievable	LOW	• N/A	LOW
Vegetation													
No development for the road upgrade and associated mining sites	Should the project not proceed, the current land use will remain the same (grassland). There will be no vegetation removal and therefore no unnecessary loss of natural vegetation or SCC due to road upgrade activities.	Positive	Indirect, cumulative	Moderate	Study area	Long-term	Possible	Reversible	Resource will not be lost	Easily Achievable	MODERATE POSITIVE	• No mitigation required.	MODERATE POSITIVE
Socio-economic environment													
Job creation	If the development does not proceed, then there will be no temporary job creation opportunities associated with the development	Negative	Indirect	Moderate	Municipal	Long-term	Possible	Reversible	Resource will not be lost	Difficult	LOW	• No mitigations implemented	LOW
Cultural environment													
Heritage and paleontological resources	If the development does not proceed, then there will be little to no impact on identified and unidentified resources.ga	Positive	Indirect	Low	Study area	Long-term	Possible	Reversible	Resource will not be lost	Achievable	NO EFFECT	• No mitigations implemented	NO EFFECT

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

SUMMARY OF THE PROPOSED DEVELOPMENT

The Eastern Cape Department of Transport proposes to upgrade a 20 km section of the DR08035 road from Clarkebury to the Mjanyana Hospital in the Eastern Cape. This will include the upgrade of bridges and culverts along the road. The upgrade to a tarred surface will largely follow the route of the existing gravel road, within minor deviations in several areas. The aim of the road upgrade is to provide easy access to the hospital for villagers along the route of DR08035 from Clarkebury and surrounding areas.

The affected road portion is approximately 20 km long and 6-7m wide and will be upgraded from gravel to black top surface standards. The road upgrading activities will take the form of minimum mass earthworks for the improvement of existing vertical and horizontal alignments where necessary, additional pavement layers and seals. The upgrading action, in addition to the construction of the road pavement structure, will also include the installation of surface and subsurface drainage, traffic calming facilities, etc. This section of road will cross two major watercourses requiring upgrades to existing bridge structures and construction of an additional bridge structure (Bridges 1 and 2 in Figure 1.1 above) as well as numerous minor river crossings requiring culverts.

The No-Go option has been assessed.

SUMMARY OF SIGNIFICANT IMPACTS (ALL IMPACTS THAT ARE HIGH PRE-MITIGATION)

PLANNING & DESIGN PHASE		
Impacts	**Significance pre-mitigation**	**Significance post-mitigation**
LEGISLATION AND POLICY COMPLIANCE		
– During the planning and design phase, failure to comply with existing policies and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation etc. This could result in legal non-compliance, fines, overall project failure or delays in construction activity and undue disturbance to the natural environment.	HIGH NEGATIVE	LOW NEGATIVE
STORMWATER MANAGEMENT		
– During the planning and design phase, inappropriate design of stormwater structure may result in increased levels of erosion, sedimentation and pollution of the watercourses.	HIGH NEGATIVE	LOW NEGATIVE

CONSTRUCTION PHASE		
Impacts	**Significance pre-mitigation**	**Significance post-mitigation**
LEGISLATION AND POLICY COMPLIANCE		
– During the construction phase, failure to implement mitigation measures specified in the EMPr and EA could result in fines, overall project failure or delays in construction and undue disturbance to the natural environment.	HIGH NEGATIVE	LOW NEGATIVE

HAZARDOUS SUBSTANCES		
– During the construction phase, spillages of hazardous substances from inappropriate handling, transport and use of the substances may result in pollution of the surrounding environment and watercourse as well as soil contamination. Spillage of hazardous substances may also pose a health and safety risk to the staff on site	HIGH NEGATIVE	LOW NEGATIVE
DISTURBANCE OF AQUATIC AND WETLAND VEGETATION AND HABITAT		
– During the construction phase, indiscriminate removal or unnecessary encroachment into riparian and wetland vegetation may lead to disturbance of the aquatic ecosystem.	HIGH NEGATIVE	LOW NEGATIVE
CHANGES TO FLUVIAL GEOMORPHOLOGY AND HYDROLOGY		
– During the construction phase, inappropriate placement of infrastructure, earthworks within the watercourse and prolonged coffer dams/diversion structures may alter natural flow patterns	HIGH NEGATIVE	LOW NEGATIVE
EROSION AND SEDIMENTATION		
– During the construction phase, vegetation clearance and lack of implementation of erosion control measures may result in deterioration of the surrounding habitat as a result of erosion of banks, slopes and bed of watercourse and resultant sedimentation.	HIGH NEGATIVE	LOW NEGATIVE
SPECIES OF CONSERVATION CONCERN (SCC)		
– During the construction phase, construction activities associated with the upgrading of the road as well as mining activities may permanently destroy or result in the loss of plant and animal SCC present on site.	HIGH NEGATIVE	LOW NEGATIVE
ANIMAL DISTURBANCES AND MORTALITIES		
– During the construction phase, construction activities, vehicles, crew and materials may result in animal fatalities through direct fatalities, habitat destruction, opportunistic hunting, collisions, accidents or baiting and trapping.	HIGH NEGATIVE	LOW NEGATIVE

ESTABLISHMENTS OF ALIEN PLANT SPECIES		
– During the construction phase, the removal of natural vegetation creates open habitats that favour the establishment of undesirable alien plant species in areas that are typically very difficult to eradicate and may pose a threat to neighbouring ecosystems	HIGH NEGATIVE	LOW NEGATIVE
HEALTH AND SAFETY		
– During the construction phase, there is potential for injuries to workers during construction activities. Should construction sites not be adequately cordoned off and dangerous areas demarcated, there is also potential for injuries to the general public.	HIGH NEGATIVE	LOW NEGATIVE
– During the construction phase there in an increase in the potential for road accidents to occur as the usual flow of traffic will be obstructed by construction activities.	HIGH NEGATIVE	LOW NEGATIVE
ON-SITE FIRE RISK		
– During the construction phase inadequate attention to fire safety awareness and fire safety equipment could result in uncontrolled fires, posing a threat to the surrounding environment and residential properties.	HIGH NEGATIVE	LOW NEGATIVE
HERITAGE AND PALEONTOLOGICAL RESOURCES		
– During the construction phase, earthworks could impact burial sites in close proximity to the road reserve resulting in the displacement and/or destruction of burials in the project area.	HIGH NEGATIVE	LOW NEGATIVE

OPERATIONAL PHASE		
Impacts	**Significance pre-mitigation**	**Significance post-mitigation**
LEGISLATION AND POLICY COMPLIANCE		
- During the Operational Phase, failure to implement the operational requirements as stated in the EA and any other permits/licenses that may be issued could result in the failure of the project and could negatively impact the surrounding environment.	HIGH NEGATIVE	LOW NEGATIVE

SUMMARY OF IMPACT ASSESSMENT SIGNIFICANCE, PRE- AND POST- MITIGATION

	PRE-MITIGATION			POST-MITIGATION		
	LOW	MODERATE	HIGH	LOW	MODERATE	HIGH
Planning and Design	0	9	2	11	0	0
Construction	0	19(+1)	13	32	(+1)	0
Operation	0	6 (+2)	1	7	(+2)	0
TOTAL	0	34 (+3)	16	40	(+3)	0

OPINION OF THE EAP

CES (the EAP) hereby provides the following opinion concerning the proposed road upgrade from the District road DR08035 intersection with the N2 to the intersection with the R61 (Clarkebury):

It is the opinion of CES that this Basic Assessment Report contains sufficient information to allow the DEDEAT to make an informed decision. CES recommends that the application for Environmental

Authorisation be approved on condition **that the recommended mitigation measures stated herein are effectively implemented.** Provided that all mitigation measures detailed in this report are implemented, it is the opinion of the EAP that the proposed development is environmentally and socially acceptable. Please refer to Section E below for the recommended mitigation measures.
No-go alternative (compulsory)
The "no-go" option for the project consists of the road upgrade from the District road DR08035 from the intersection with the N2 to the intersection with the R61 (Clarkbury) not going ahead. This would result in the following impacts: • The road will remain in its current state and therefor prove difficult for the surrounding communities/villagers to access the hospital along the route of DR08035 from Clarkbury and surrounding areas. • Loss of potential temporary job opportunities.

SECTION E. RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	**YES**	~~NO~~
Is an EMPr attached?	**YES**	~~NO~~

The EMPr must be attached as Appendix F.

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

MITIGATION MEASURES

PLANNING & DESIGN PHASE

- All relevant legislation and policy must be consulted, and the proponent must ensure that the project is compliant with such legislation and policy.
- These should include (but are not restricted to): NEMA, Eastern Cape Biodiversity Conservation Plan (ECBCP), Local Municipal bylaws.
- All relevant permits and authorisations including Water Use Licenses, Building Plan Approvals and plant removal permits must be in place prior to commencement of construction.
- The design and location of the construction site must ensure minimal impacts to the aquatic environment and residential houses surrounding the site.
- An appropriate waste management plan for handling onsite general and hazardous waste during the construction phase must be developed and implemented.
- Appropriate stormwater structures must be designed to minimise erosion and sedimentation of watercourses.
- All road sections situated on slopes must incorporate stormwater diversion.
- Stormwater design must be in line with and DWS requirements. Scour countermeasures must be incorporated in the design of all bridges and all culverts in the study areas.
- All culverts must be designed in such a manner so as to not impede or divert natural baseflows or increase upstream flood inundation.
- Box culverts should be selected over pipe culverts, as they are less restrictive in terms of flow and also aid in reducing habitat fragmentation.
- Bridges should span the entire width of the river if the width of the river is sufficiently narrow.
- The number of piers placed within the river should be limited to as much as possible to limit the disturbance to the bed and banks of the river.
- All culverts/bridges should be designed to be above the 1:100-year floodline or major flood event.
- The design and layout of the road upgrade must avoid unnecessary loss of natural vegetation.
- A Rehab and Alien Vegetation Management Plan must be developed to mitigate the establishment and spread of undesirable alien plant species during all phases of the project.
- A health and safety plan in terms of the Occupational Health and Safety Act (Act No 85 of 1993) must be drawn up by and HSE officer prior to construction to ensure workers safety.
- An Emergency Preparedness Plan must be designed for the construction phase prior to construction commencement.

- During the planning and design phase, a Rehabilitation Plan must be developed and implemented during and after construction.
- Regular monitoring of implementation of this plan for the rehabilitation of disturbed areas must be conducted throughout the duration of the construction phase.

CONSTRUCTION PHASE

- The Applicant must employ an independent Environmental Control Officer (ECO) for the duration of the construction phase to audit the contractor's compliance with the specifications in the EA, EMPr and any other permits/authorisations.
- The construction site must be demarcated and communicated with the contractor prior to commencement of construction. All No-Go areas must be clearly demarcated during the planning and design.
- Construction must only take place within the demarcated construction footprint.
- Any construction outside of the demarcated site must be approved by the ECO before construction in this area takes place.
- Regular monitoring of construction works and placement of the associated infrastructure for the road upgrade must be conducted by a qualified ECO throughout the duration of construction. Material stockpiles must be located 50m away from any watercourse, and they must be monitored for erosion and alien vegetation.
- Material stockpiles locations must be approved by the ECO. A Stormwater Management Plan must be developed in the planning and design phase and must be implemented throughout the duration of construction.
- Berms and swathes must be placed in areas that may be prone to erosion.
- Temporary cut-off drains and berms may be required to capture storm water and promote infiltration.
- A Waste Management Plan for handling onsite waste during the construction phase must be developed and implemented.
- All general waste must be disposed of in bins/waste skips labelled "general waste".
- Sufficient waste bins must be provided throughout the construction site for collecting waste.
- All general waste collected on site must be disposed of at a licensed general waste disposal site.
- Adequate sanitary facilities must be provided for construction workers and they must be properly secured to the ground.
- Maintenance of the chemical toilets should be done on a regular basis to prevent any leakages.

- Any storage tanks containing hazardous materials (ie fuel, diesel) must be placed in bunded containment areas with sealed surfaces and the capacity of the bunded containment areas must be 110% the volume of the storage tanks within it.
- Barrels, bitumen must be stored in a secured area and all used barrels must be properly maintained and secured.
- Cement and concrete must not be mixed directly on the ground, or during rainfall events when the potential for transport of pollutants to watercourses is the greatest.
- Used cement bags should be collected and stored in containers to prevent wind-blown cement dust and water contamination.
- Mixed cement/concrete must not be allowed to flow into any watercourses.
- Drip trays must be placed under stationary construction machinery overnight to avoid soil contamination from oil and fuel leaks.
- Absorbent materials in the form of a spill kit must be provided on site.
- Contaminated soil must either be excavated or treated on-site, depending on the nature and extent of the spill.
- The ECO must determine the precise method of treatment of polluted soil. This could involve the application of soil absorbent materials or oil-digestive powders to the contaminated soil.
- Contaminated remediation materials must be carefully removed from the area of the spill so as to prevent further release of petrochemicals to the environment and stored in suitable containers until appropriate disposal.
- All hazardous waste generated on site must be placed in a temporary impermeable bunded containment area which must be disposed of at a hazardous landfill site or be collected by the appropriate service provider.
- Proof of receipt of hazardous waste by a licensed service provider must be maintained on the site.
- Wherever possible, construction activities should be undertaken during the driest part of the year to minimize downstream sedimentation due to excavation, etc. When not possible, suitable stream diversion structures must be used to ensure the river is not negatively impacted by construction activity. Stormwater must be managed effectively to minimize the ingress of construction debris and sediment-laden stormwater into surrounding watercourses.
- No construction material or stockpiles must be stored within the moderate sensitivity area indicated in the Aquatic and Wetland Assessment Report.
- Stockpiles must not be placed within the moderate sensitivity area indicated in the Aquatic and Wetland Assessment Report.

- Stockpiles must be monitored for erosion and mobilisation of materials towards watercourses. If this is noted by an ECO, suitable cut-off drains, or berms must be placed between the stockpile area and the nearest watercourse.
- Stockpiles should not exceed 1.5 m in height.
- Stockpiles should be covered during windy periods. A Rehabilitation and Alien Vegetation Management Plan must be developed and implemented during to construction activities, to reduce the establishment and spread of undesirable alien plant species.
- Construction vehicles and machinery must not encroach into areas outside/surrounding the planned project footprint.
- Alien plants must be eradicated from the impacted areas as they appear, and the transformed area monitored.
- The Alien Vegetation Management Plan must be approved by the appointed ECO prior to implementation.
- A walkthrough must be done by a suitably qualified individual to confirm the occurrence of SCC's in the study area.
- All plant SCC must be relocated to outside the construction footprint prior to commencement of activities.
- The relevant permits must be obtained from the competent authority in order to remove any SCC. Removal of any riparian and wetland vegetation must take place under the supervision of an ECO.
- Removal of riparian zone alien vegetation should be prioritized.
- Banks must be artificially stabilised as soon as possible if riparian vegetation is removed.
- Vehicles and machinery must not encroach into riparian zone areas outside/surrounding road upgrade footprint.
- Damage to bed and banks of the watercourses must be avoided other than to complete specific works within the watercourse.
- No material, sediment or debris from bridge/culvert construction must be left or allowed to build up in the watercourse.
- Coffer dams and any temporary diversions should not be in place for more than 30 days if possible.
- Construction activities within watercourses should take place within the dry season, when the flows are at their lowest, where possible.
- Vegetation clearing during construction must be kept a minimum and only to the site footprint.
- Erosion controls and sediment trapping measures must be put in place.

- All trenches/excavations must be backfilled, and all disturbed areas backfilled, compacted and revegetated.
- Disturbed areas must be constantly monitored for erosion channels and these must be rehabilitated immediately.
- The construction footprint and other adjacent areas that require clearing of vegetation, must be surveyed and demarcated prior to construction commencing.
- No construction or vegetation clearing activities must occur outside the demarcated footprint.
- Construction activities must be preferred in areas where degraded natural vegetation is found.
- Where vegetation has been cleared, site rehabilitation in terms of soil stabilization and vegetation must be undertaken.
- Cleared vegetation must not be piled on top of natural vegetation but must be stockpiled temporarily on bare ground and removed to a registered landfill site. Alternatively, cleared vegetation may be mulched and used as ground cover during rehabilitation.
- The contractor's staff must not harvest any natural vegetation.
- If SCC are discovered during construction, a search and rescue operation must be coordinated by the ECO and contractor prior to commencement of construction activities.
- All SCC impacted by construction activities must be conserved and rescued.
- All rescued SCC must be replanted within the site where it was originally found or in close proximity during rehabilitation. All staff must be trained on site regarding the proper management and response should animals be encountered.
- If deemed necessary, a specialist must be appointed to search and relocate animals in the construction region prior to work commencing,
- No hunting, baiting or trapping of animals must be allowed on site or surrounding areas.
- Vegetation clearance and aquatic habitats must be avoided as far as possible.
- The approved Rehab Alien Vegetation Management Plan must be implemented during the construction phase to reduce the establishment and spread of undesirable alien plant species.
- Alien plants must be removed from the site through appropriate methods such as hand pulling, application of chemicals, cutting etc. as in accordance to the NEMBA: Alien Invasive Species Regulations. All temporarily impacted areas must be rehabilitated with indigenous vegetation as soon as construction in the particular area or phase of work is complete, i.e. rehabilitation is on-going throughout construction.
- Restoration must be conducted as per the approved Rehabilitation Erosion and Alien Vegetation Management Plans. Where possible construction resources must be purchased from local companies.

- A traffic management plan must be implemented
- The contractor must properly mark all access roads. Markers must show the direction of travel to which the road leads. Roads not to be used must be marked with a "NO ENTRY" sign. Where required, speed limits must be indicated on the roads. All speed limits must be strictly adhered to at all time. Environmental and safety inductions must be provided to all staff before they are permitted on the construction site.
- Dangerous sites (e.g. open excavations) must be cordoned off and no public access allowed.
- Contractors must have emergency telephone numbers on site.
- A health and safety file is to be kept on site and all incidents must be recorded and reported to the designated safety officer by the contractor. Speed limit and other road signage must be instituted as required.
- Traffic calming measures must be implemented throughout the duration of the construction phase. During windy periods un-surfaced and un-vegetated areas must bestabalized or dampened down.
- Vegetation must be retained where possible as this will reduce dust travel.
- Any complaints or claims emanating from dust issues must be attended to immediately and noted in the complaints register. All construction activity should take place during daylight working hours (i.e. 7 – 5pm).
- All construction activity and equipment must be limited to the demarcated areas.
- Good housekeeping must be maintained throughout the construction work areas to limit the visual intrusion of the construction activities. Activities which include the movement of construction vehicles and the operation of machinery should be restricted to normal working hours (07:00am – 17:00pm).
- There must be a complaint register on site for nearby residents to make complaints. These must be addressed and recorded.
- All flammable substances must be stored in dry areas which do not pose an ignition risk to the said substances. Smoking must not be permitted near flammable substances. No open fires must be allowed on site. Fire extinguishers must be available onsite.
- All previously undetected heritage remains / graves must be located as soon as possible after disturbance so as to maximize the chances of successful rescue/mitigation work. A conservation buffer of at least 20m around the site should be implemented and the area should be monitored on a frequent basis by an informed ECO in order to avoid the destruction of existing and previously undetected heritage remains.

- The necessary alteration and/or destruction permits must be obtained from the relevant Heritage Resources Authorities prior to site sampling and destruction, should it be required. Destruction of these sites may be permitted if, and when required.
- Human burials occurring in close vicinity of the proposed road upgrade alignment must be fenced off and conserved and a conservation buffer of at least 50m be maintained around the heritage receptors.
- A 10m conservation buffer around burial sites must be implemented on the condition that a temporary construction barricade is erected around (but no closer than 3m) from affected graves, burial sites affected in such a way should be monitored on a bi-weekly basis by an informed ECO or by the heritage specialist in order to detect any impact on the resource at the earliest opportunity.
- Alternatively, the burials must be relocated according to the applicable social and statutory requirements, should impact prove inevitable, site management (Fencing, access control), as well as strict monitoring by the ECO should be implemented.
- **Grave site BP-12 (S31.83082044; E28.19396672, See page 62 of the Archaeological Impact Assessment Report) must be relocated as it will fall within 3m from the proposed toe of the embankment cut.**
- Should impact on any human burial prove inevitable, full grave relocations are recommended for these burial grounds. This measure must be undertaken by a qualified archaeologist, and in accordance with relevant legislation, permitting, statutory permissions and subject to any local and regional provisions and laws and by-laws pertaining to human remains. A full social consultation process must occur in conjunction with the mitigation of cemeteries and burials.
- The rehabilitation plan must be implemented during and after the construction has been completed.
- All temporarily disturbed areas must be rehabilitated with indigenous vegetation as soon as construction in the particular area or phase of work is complete, i.e. rehabilitation is on-going throughout construction as phases have been completed.
- All impacted areas must be restored as per the EMPr requirements.

OPERATIONAL PHASE

- All relevant legislation and policy must be consulted, and the proponent must ensure that the project is compliant with such legislation and policy. The operational conditions outlined in the EA must be adhered to. All conditions in the Water Use License must be adhered to especially relating to water monitoring etc. (if required). All condition stipulated in any other additional permits must be adhered to.

- Stormwater infrastructure must be maintained and monitored for effectiveness with respect to controlling and minimising erosion and sedimentation of watercourses. All infrastructures such as culverts, bridges etc. must be maintained and monitored on a regular basis to check for failure of infrastructure.
- The approved Alien Vegetation Management Plan must be implemented biannually for a year after construction, to reduce the establishment and spread of undesirable alien plant species post construction.
- Alien plants must be removed from the site through appropriate methods such as hand pulling, application of chemicals, cutting etc. as in accordance to the NEMBA: Alien Invasive Species Regulations.
- Measures to accommodate pedestrians should be in place and continually enforced.
- Traffic calming measures should be in place along approaching roads.
- Rehabilitation Plan must be implemented post- construction.

SECTION F: APPENDICES

The following appendices must be attached as appropriate:

- Appendix A: Site plan(s)
- Appendix B: Site Photographs
- Appendix C: Facility illustration(s)
- Appendix D: Specialist reports
- Appendix E: Public Participation Report
- Appendix F: Environmental Management Programme (EMPr)
- Appendix G: Impact Assessment Methodology
- Appendix H: Proof of WULA application in progress

Appendix A: Site plan(s)

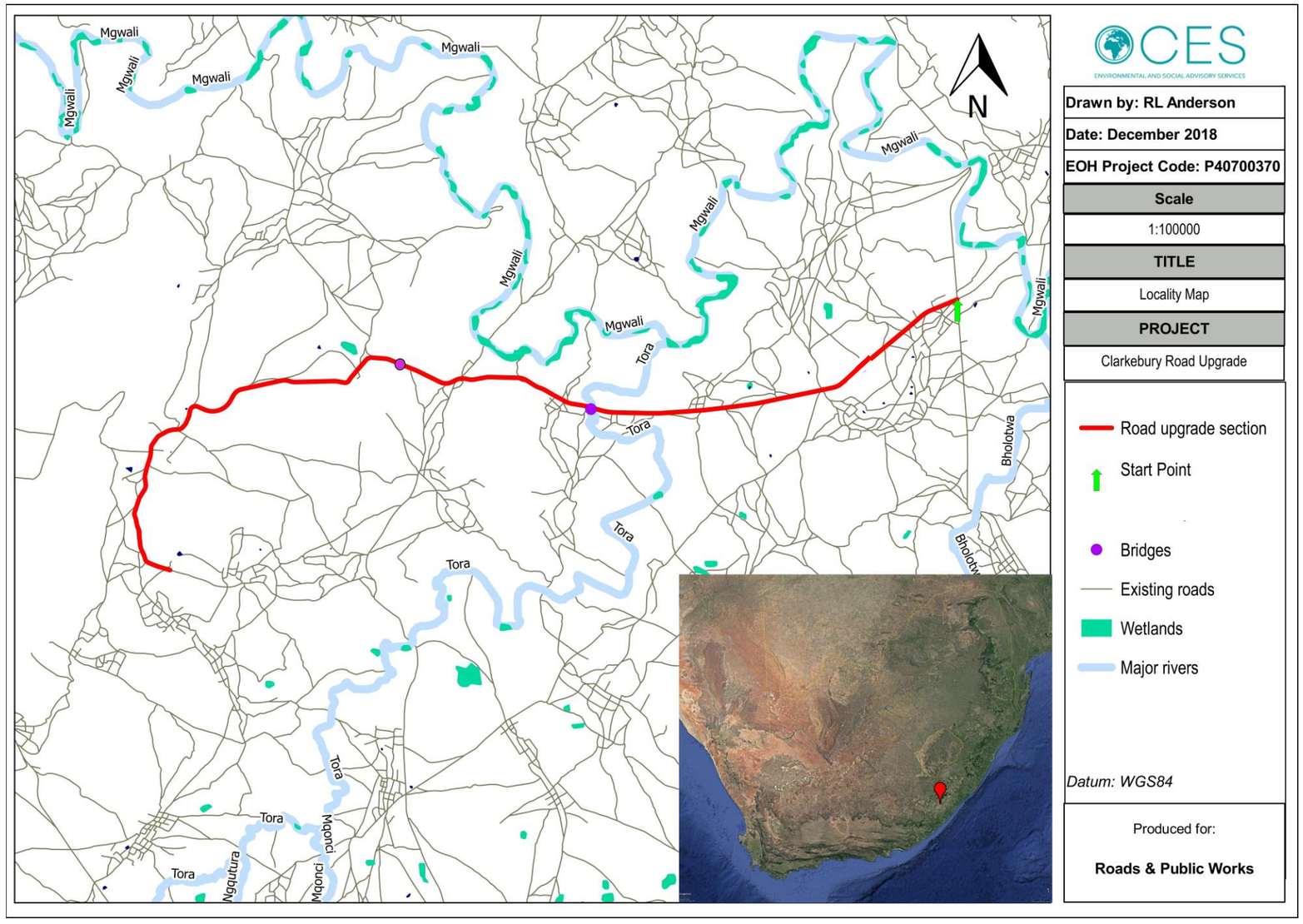


Figure 1.1: Locality Map of the proposed road upgrade from the District road DR08035 to the intersection with the R61 (Clarkbury), Eastern Cape.

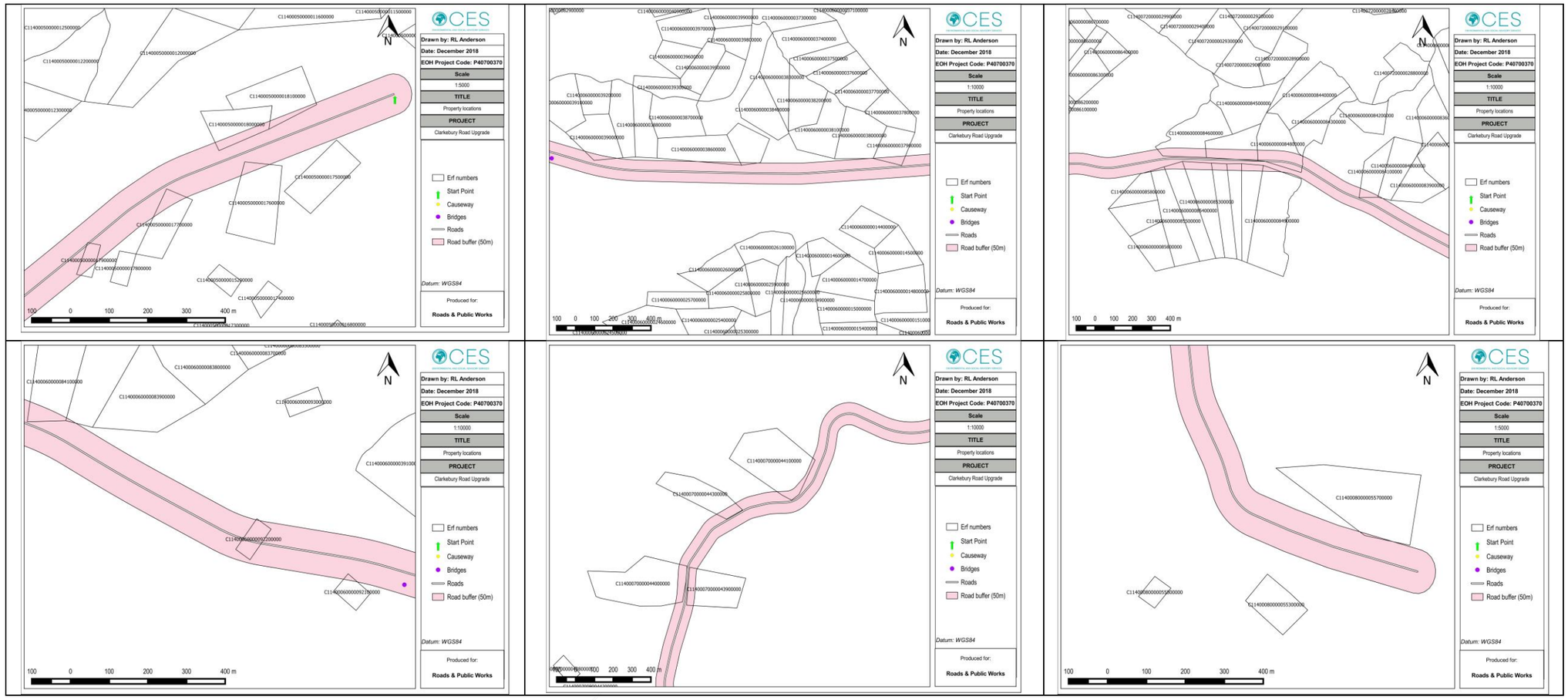


Figure 1.2: Cadastral maps of the proposed road upgrade

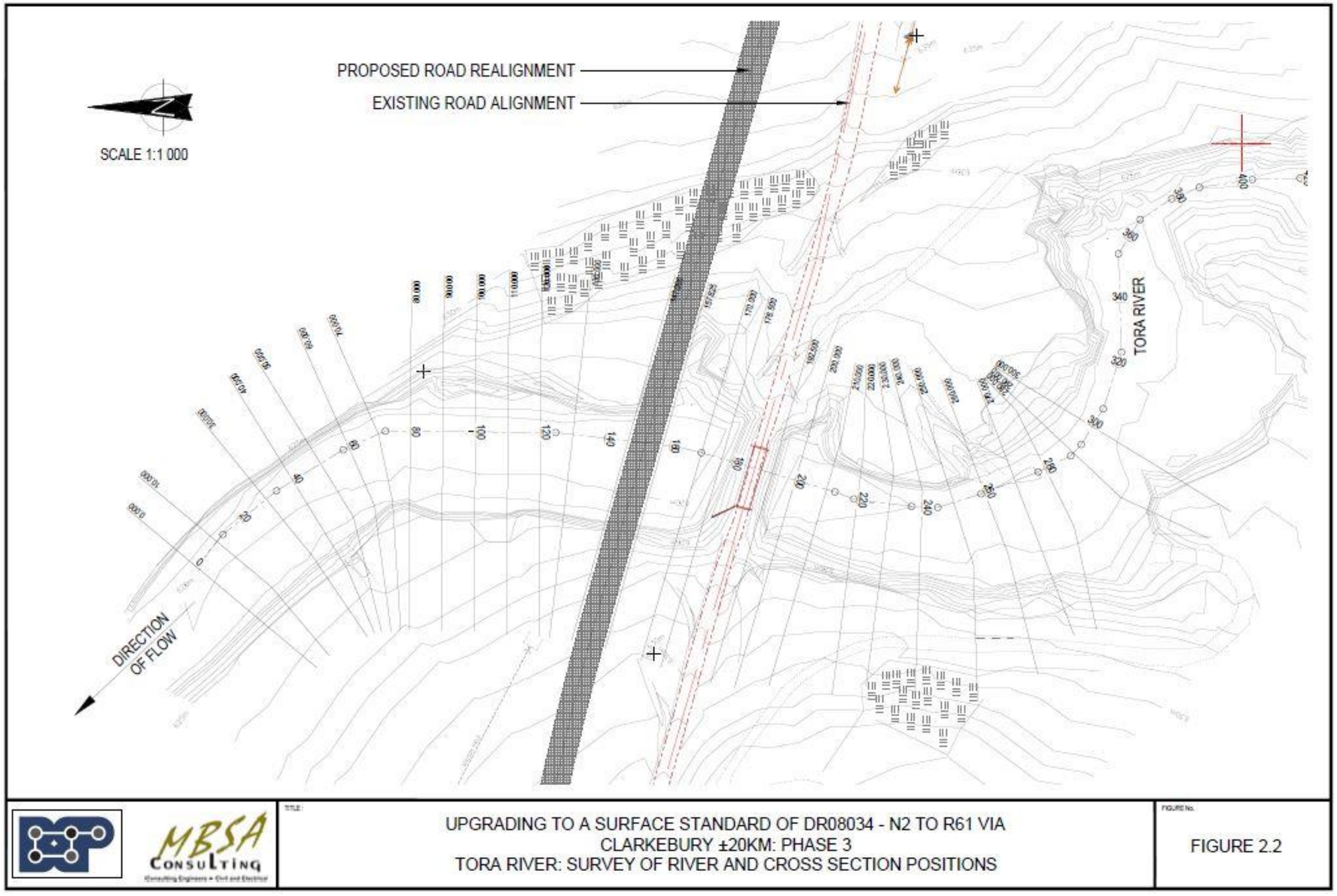
Appendix B: Site Photographs

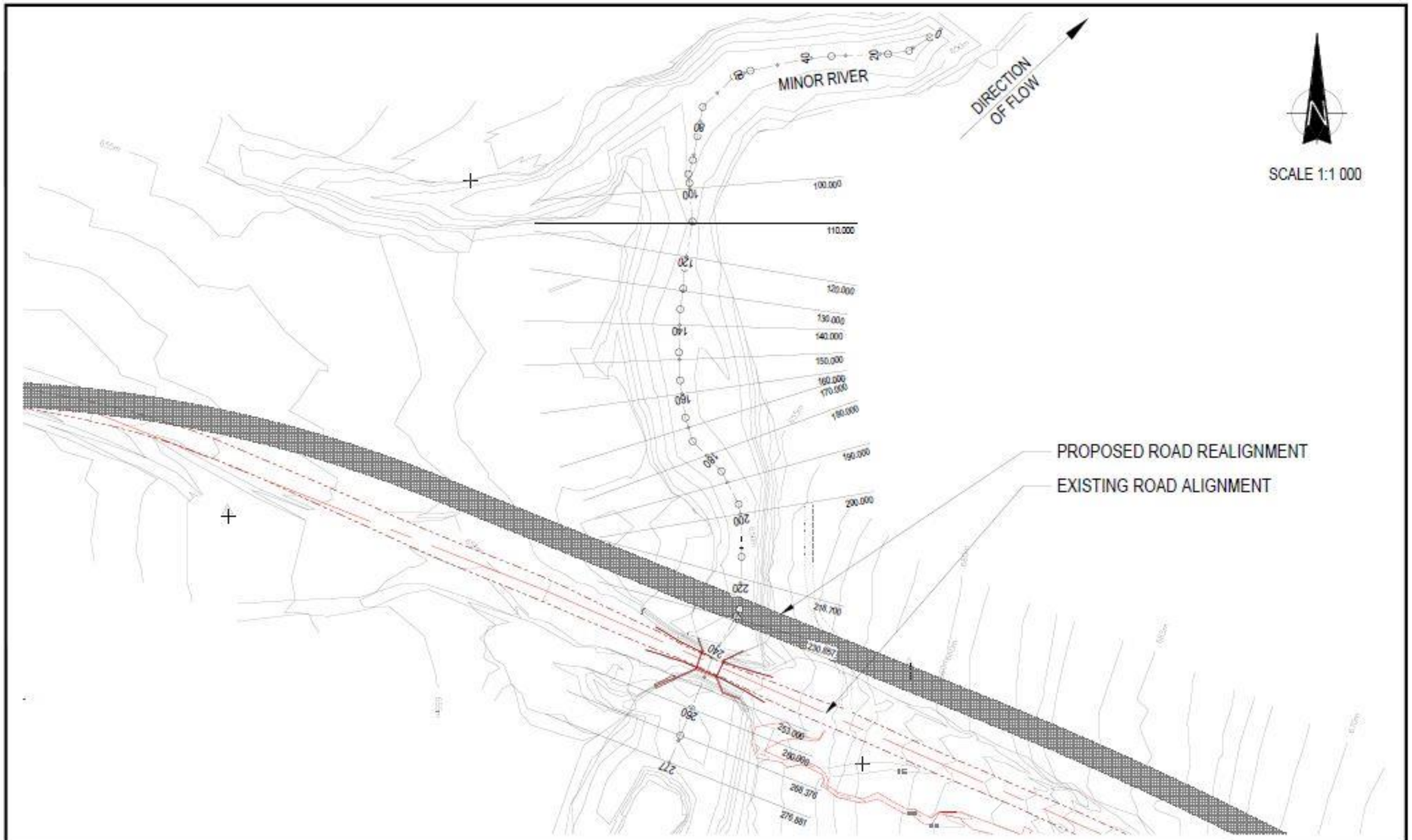
Photographs taken of the project site and surroundings.

Co-ordinates

32° 50.553'S; 27° 32.266'

Appendix C: Facility illustration(s)





MBSA CONSULTING
Consulting Engineers • Civil and Electrical

TITLE:

UPGRADING TO A SURFACE STANDARD OF DR08034 - N2 TO R61 VIA CLARKEBURY ±20KM: PHASE 3
TORA RIVER BRIDGE: SURVEY OF RIVER & CROSS SECTION POSITIONS

FIGURE 3.2

MBSA CONSULTING

UPGRADING TO A SURFACE STANDARD OF DR08034 - N2 TO R61 VIA
CLARKEBURY ±20KM: PHASE 3
TORA RIVER BRIDGE - AERIAL PHOTO OF EXISTING BRIDGE AND ENVIRONS

FIGURE 2.1

Layout of the road DR08035 (Phase 3) to the intersection with the R61 (Clarkbury), Eastern Cape

APPENDIX D: SPECIALIST REPORTS

D1 - Ecological Impact Assessment Report

D2 - Aquatic Impact Assessment Report

D3 - Archaeological Impact Assessment Report

Appendix E: Public Participation Report

Appendix E1: Advertisement

Appendix E2: Noticeboards

Appendix E3: Background Information Documents

Appendix E4: Notifications

Appendix E5: Stakeholder and I&AP database

Appendix E6: Issues and Response Trail

Appendix E1: Advertisement

CES
ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT

Proposed Upgrade of Road DR08035: Phase 3 and Associated Mining Activities

Notice is hereby given in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) Environmental Impact Assessment (EIA) Regulations (2014, as amended) GN 326, Section 41(2), of the intention to apply for Environmental Authorisation to the Department of Economic Development Environmental Affairs and Tourism (DEDEAT) and the Department of Mineral Resources. In addition, a Water Use License Application (WULA) as regulated by the National Water Act (Act No. 36 of 1998; NWA) will be submitted.

Proponent, Project Activities and Location: The Eastern Cape Department of Transport proposes to upgrade a 20 km section of the DR08035 road from Clarkebury to the Mganduna Hospital in the Eastern Cape. This will include the upgrading of bridges and culverts along the road, and the use of proposed borrow pits and a quarry.

NEMA Listed Activities:
A Basic Assessment is triggered by the following activities:

- Listing Notice 1: Activities 12 (ii)(a)(c); 19; 27 and 56(i)(ii);
- Listing Notice 3: Activities 4(a)(i)(ee); 12 a (ii); 14 (iii) (a) (c) (a) (i) (ff); and 18(a) (i) (ee).

A separate application for Environmental Authorisation will be submitted to the Department of Mineral Resources (DMR) for the quarry and borrow pits. A WULA will be submitted to the Department of Water and Sanitation.

CES has been commissioned to undertake the EIA. You are hereby invited to register as an Interested & Affected Party (I&AP).

For more information, registration as an I&AP and/or submission of written comments contact by post, phone, fax or e-mail:
Ms Caryn Clarke: PO Box 8145, Nahoon, 5214
Tel: 043 726 7809 | Fax: 086 410 7822 | E-mail: c.clarke@cesnet.co.za

DailyDispatch Monday October 28, 2019

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Chippa winless streak continues

Orlando Pirates hit par

Bucs' swashbuckling amounts to little as they suffer another humiliating defeat

MARK GLEESON

BLOW FOR BUCS: Fiacre Ntwari of Orlando Pirates, left, and Nyiko Mobbie of Stellenbosch FC, during the Absa Premiership match between Stellenbosch FC and Pirates at the Cape Town Stadium on Saturday

Pulisic stars for Chelsea as Man City chase Liverpool

CHRISTIAN PULISIC

CES

ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT

Proposed Upgrade of Road DR08035: Phase 3 and Associated Mining Activities

Notice is hereby given in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) Environmental Impact Assessment (EIA) Regulations (2014, as amended) GN 326, Section 41(2), of the intention to apply for Environmental Authorisation to the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) and the Department of Mineral Resources. In addition, a Water Use Licence Application (WULA) as regulated by the National Water Act (Act No. 36 of 1998; NWA) will be submitted.

Proponent, Project Activities and Location: The Eastern Cape Department of Transport proposes to upgrade a 20 km section of the DR08035 road from Clarkebury to the Mbanyana Hospital in the Eastern Cape. This will include the upgrading of bridges and culverts along the road, and the use of proposed borrow pits and a quarry.

NEMA Listed Activities:

A Basic Assessment is triggered by the following activities:

- Listing Notice 1: Activities 12 (ii)(a)(c); 19; 27 and 56(ii); and
- Listing Notice 3: Activities 4(a)(ii)(ee); 12 a (ii); 14 (ii) (a) (c) (a) (i) (ff); and 18(a) (i) (ee).

A separate application for Environmental Authorisation will be submitted to the Department of Mineral Resources (DMR) for the quarry and borrow pits. A WULA will be submitted to the Department of Water and Sanitation.

CES has been commissioned to undertake the EIA process. You are hereby invited to register as an Interested & Affected Party (I&AP).

For more information, registration as an I&AP and/or submission of written comments contact by post, phone, fax or e-mail:

Ms Caryn Clarke: PO Box 8145, Nahoon, 5214

Tel: 043 726 7809 | Fax: 086 410 7822 |

E-mail: c.clarke@cesnet.co.za

Appendix E2: Noticeboard

NOTICE OF
ENVIRONMENTAL IMPACT ASSESSMENT

PROPOSED UPGRADE OF ROAD DR08034: PHASE 3, EASTERN CAPE

Notice is hereby given in terms of Regulation 41(2) published in Government Notice No. R 326 under Chapter 5 of the National Environmental Management Act (No. 107 of 1998; NEMA) of the intent to submit an application for Environmental Authorisation to the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT).

Proponent, Project Activity and Location: The Eastern Cape Department of Transport proposes to upgrade a 20 km section of the DR08034 road from Clarkebury to the Mjanyana Hospital in the Eastern Cape. This will include the upgrade of bridges and culverts along the road.

NEMA Listed Activities:
A Basic Assessment is triggered by the following Listing Notice 1 and 3 activities:

- GNR 327 No. 19: The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.
- GNR 324 No. 4: The development of a road wider than 4 metres with a reserve less than 13.5 metres.
- Other listed activities: GNR 327 No. 56, GNR 324 No. 14 and GNR 324 No. 18.

The proposed development will include a Water Use License Application as regulated by the National Water Act (Act No. 36 of 1998).

CES has been appointed as the Environmental Assessment Practitioner (EAP) to undertake the Environmental Impact Assessment (EIA) for the proposed road upgrade in terms of the EIA Regulations (2014, as amended). You are hereby invited to register as an Interested & Affected Party (I&AP). Please submit your name, contact information and any comments to the contact person below.

Contact Ms Jaclyn Smith by post, phone, fax or e-mail:
PO Box 8145, Nahoon, 5210. Tel: 043 726 7809, Fax: 043 726 8352, Email: j.smith@cesnet.co.za

ISAZISO SOHLOLO LOKUCHAPHAZELEKA KOKUSINGQONGILEYO

UKUPHUCULWA KWENDLELA IDR08034: PHASE 3, EASTERN CAPE

Esi Saziso sikhutshwa malunga noMthetho wama-41(2) opapashwe kwiSaziso GN.R982 sikaRhulumente phantsi kweSahluko 5 soMthetho Wokulawula Indalo (Umthetho 107 ka 1998) ngenjongo yokufaka isicelo Sokuhlola Ukuchaphazeleka Kwendalo kwisebe lokuSingqongileyo likaZwelonke.

Abenzi bophuhliso nendawo yophuhliso: Isebe lweZothutho liceba ukuphucula indlela IDR08034 esuka eClarkebury ukuyoqhina kwisibhedlele iMjanyana, eMpuma Koloni.

Uphuhliso oluoetywayo: Olu phuhliso luyakuquka ukuphuculwa kwalendlela yonke. Ezinye izinto eziyakwenziwa kukuphuculwa kwemifolo, kulungiswe iindawo ezithile endleleni, kuqiniswe nebhulorho.

Okudweliswe ngumthetho: Olu phuhliso lufuna uphando lokuchaphazeleka kokusingqongileyo oluphangeleleyo nolungekho nzulu ngokoluhlu lwezinto ezidweliswe phantsi kwale mithetho:

GN R. 327: 19 (i); GN R.324: 4 (ii); GN R. 327: 56 (i), (ii); GN R. 324: 14; GN R. 324: 18.

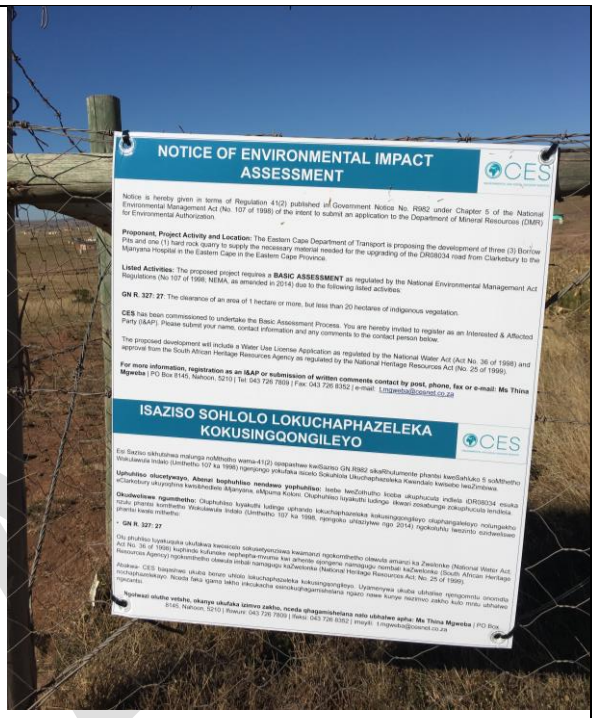
Olu phuhliso luyakuquka ukufakwa kwesicelo sokusetyenziswa kwamanzi ngokomthetho olawula amanzi ka Zwelonke (National Water Act; Act No. 36 of 1998), kuphinde kufunwe isicelo sokwemba iitye njengoko kubhaliwe kumthetho wophuhliso lwezimbiwa namafutha kaZwelonke (Minerals and Petroleum Resources Development Act; Act No. 28 of 2002). Kuyakufuneka nephepha-mvume kwi arhente ejongene namagugu nemball kaZwelonke (South African Heritage Resources Agency) ngokomthetho olawula imball namagugu kaZwelonke (National Heritage Resources Act; No. 25 of 1999).

Abakwa- CES baqashwe ukuba benze uhlolo lokuchaphazeleka kokusingqongileyo. Uyamenywa ukuba ubhalise njengomntu onomdla nochaphazelekayo. Niceda faka igama lakho inkcukacha esinokuqhagamshelana ngazo nawe kunye nezimvo zakho kulo mntu ubhaliwe ngezantsi.

Contact Ms Jaclyn Smith by post, phone, fax or e-mail:
PO Box 8145, Nahoon, 5210. Tel: 043 726 7809, Fax: 043 726 8352, Email: j.smith@cesnet.co.za

Proof of placement:

Coordinates: 31°48'41.07"S; 28°15'56.38"E



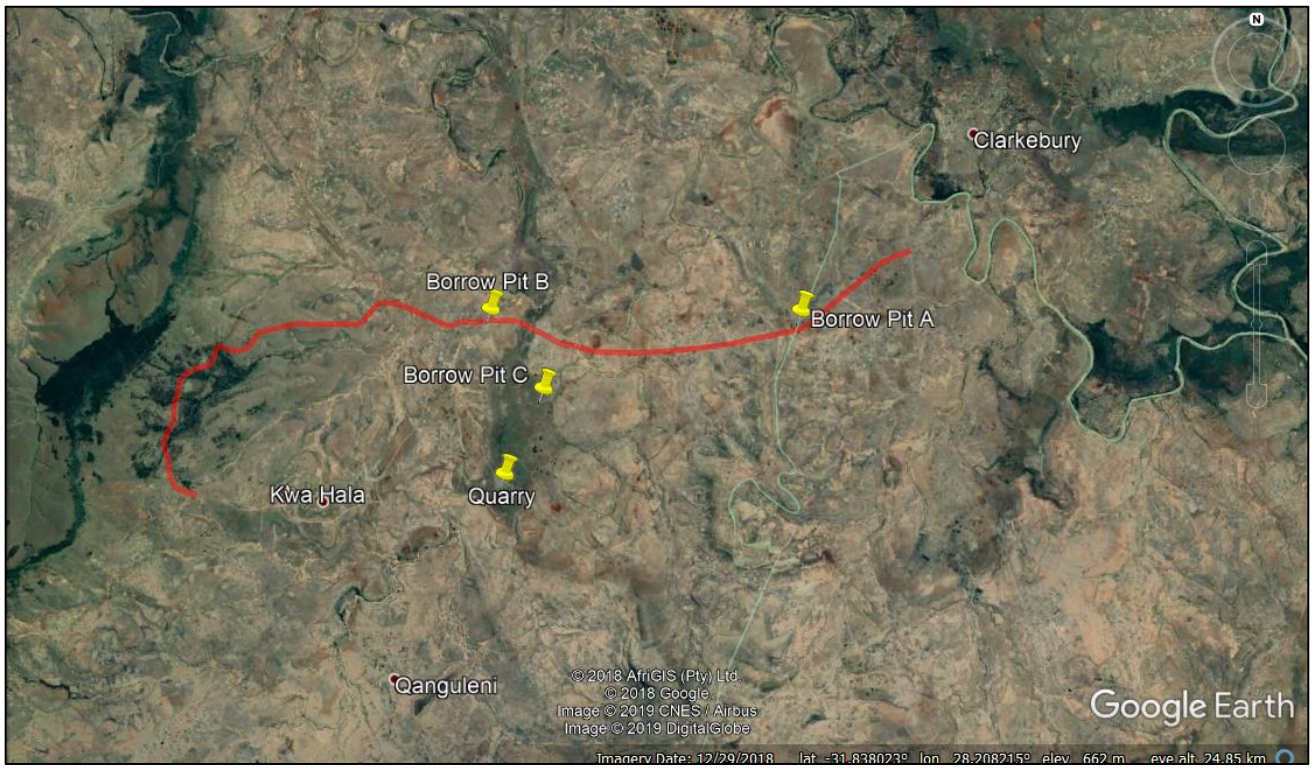
Coordinates: 31°49'30.55"S; 28°10'9.23"E

Coordinates: 31°51'37.41"S; 28° 8'46.40"E

Appendix E3: Background Information Document (BID)

ENVIRONMENTAL IMPACT ASSESSMENT: PROPOSED UPGRADE OF ROAD DR08034- PHASE 3 AND ASSOCIATED MINING ACTIVITIES

BACKGROUND INFORMATION DOCUMENT (BID) & INVITATION TO COMMENT



Return address for comments:

Caryn Clarke

CES Environmental and Social Advisory Services

25 Tecoma Street,
Berea, East London
P.O Box 8145,
Nahoon, East London, 5210
Tel: (043) 726 7809
Fax: (043) 726 8352
Email: c.clarke@cesnet.co.za

ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES

Province of the EASTERN CAPE TRANSPORT

AIM OF THIS DOCUMENT

In terms of the National Environmental Management Act (No. 107 of 1998) (NEMA) certain listed activities require environmental approval and require that an **Environmental Impact Assessment (EIA)** be conducted. The purpose of this document is to ensure that people that are interested in or affected by the proposed project are provided with information about the proposal, the process being followed and provided with an opportunity to be involved in the EIA process.

Registering as an Interested and/or Affected Party (I&AP) allows individuals or groups the opportunity to contribute ideas, issues, and concerns relating to the project. I&APs also have an opportunity to review all of the reports and submit their comments on those reports. All of the comments that are received will be included in the reports that are submitted to the Competent Authority.

THE PROPONENT, ACTIVITY AND LOCATION

The Eastern Cape Department of Transport proposes to upgrade a 20 km section of the DR08034 road from Clarkebury to the Mjanyana Hospital in the Eastern Cape. This will include the upgrade of bridges and culverts along the road as well as the development and use of three borrow pits and one quarry.

THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

CES Environmental and Social Advisory Services has been appointed to obtain Environmental Authorisation for the project. CES was established in 1990 as a specialist environmental consulting company and has considerable experience in terrestrial, marine and freshwater ecology, the Social Impact Assessment (SIA) process, State of Environment Reporting (SOER), Integrated Waste Management Plans (IWMP), EMPs, Spatial Development Frameworks (SDF), public participation, as well as the management and co-ordination of all aspects of the EIA and Strategic Environmental Assessment (SEA) processes.

THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

According to the EIA Regulations (2014, as amended) promulgated under NEMA certain listed activities need to obtain Environmental Authorisation and require an EIA. In this case the following project activities require that a Basic Assessment be submitted to the Department of Economic Development Environmental Affairs and Tourism (DEDEAT) for approval:

Table 1: Listed Activities which require Environmental Authorisation for the road upgrade.

ACTIVITY NUMBER	LISTED ACTIVITY
GNR 327 No. 19	The infilling of depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.
GRN 327 No. 56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre – i. Where the existing reserve is wider than 13.5 metres; or ii. Where no reserve exists, where the existing road is wider than 8 metres.
GNR 324 No. 4	The development of a road wider than 4 metres with a reserve less than 13.5 metres in a.) Eastern Cape i.) outside urban areas: (ee) in Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority
GNR 324 No. 14	The development of (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs (a) within a watercourse, (c) within 32 metres of a watercourse in a.) Eastern Cape i.) outside urban areas in (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority

GNR 324 No. 18	The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre in a. Eastern Cape, i.) outside urban areas in (ee) in critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.

The mining sites also trigger listed activities in terms of NEMA EIA Regulations (2014, as amended) as per Government Gazette R326 and require the completion of a separate Basic Assessment Process which will be undertaken in accordance with Regulation 19 of the EIA Regulations (2014, as amended). The competent authority for this application will be the DMR.

Table 2: Listed Activities which require Environmental Authorisation for the mining activities.

ACTIVITY NUMBER	LISTED ACTIVITY
GNR 327 No. 27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation.

Water use authorisation will also be required from the **Department of Water and Sanitation** (DWS) in terms of the National Water Act (Act No. 36 of 1998).

PROJECT DESCRIPTION

The project entails the following:

- Upgrading of the road from gravel to black top surface;
- Road layerworks;
- Installation of surface and sub-surface road drainage;
- Improvements of the vertical and horizontal alignments;
- Traffic calming facilities; and
- Sourcing of hard rock material from proposed borrow pits and a quarry.

APPROACH TO THE BASIC ASSESSMENT REPORT

The process required for the proposed project is a Basic Assessment. This process serves primarily to inform the public and relevant authorities about the proposed project and to determine any impacts.

Process for Basic Assessments

Advertisement & registration of I&APs
↓
Distribution of BID Document to landowners, stakeholders & I&APs for comment
↓
Public meeting
↓
Submit application form to DEDEAT
↓
Public review of Draft Basic Assessment Report by I&APs (30 days)
↓
Compilation of I&AP comments
↓
Finalisation and submission of Basic Assessment Report to DEDEAT
↓
Review, comment and decision by DEDEAT

We are here!

POTENTIAL IMPACTS AND BENEFITS

CES will investigate the receiving environment in order to assess the nature of potential impacts. Impacts to be considered include environmental failure and risks of the "no-go" alternative.

HOW CAN YOU BE INVOLVED?

A Public Participation Process (PPP) is being conducted as part of the environmental process. The aim of the PPP is to allow everyone who is interested in, or likely to be affected by the proposed road upgrade and mining activities to provide input into the process.

The Public Participation Process includes:

- Advertisement in the Daily Dispatch newspaper;
- Onsite Signage;
- Circulation of the BID *(this document)* to all identified I&APs and stakeholders;
- Comments period;
- Review of the reports by all registered I&APs and stakeholders; and a
- A public meeting will be held on:
  Date: Thursday, 11 July 2019
  Time: 10h00
  Venue: KuNtlalukana Hall – Komkhulu, Eastern Cape

If you consider yourself an interested and/or affected person/party, it is important that you become and remain involved in the PPP. In order to do so please follow the steps below in order to ensure that you are continually informed of the project developments and will ensure your opportunity to raise issues and concerns pertaining to the project.

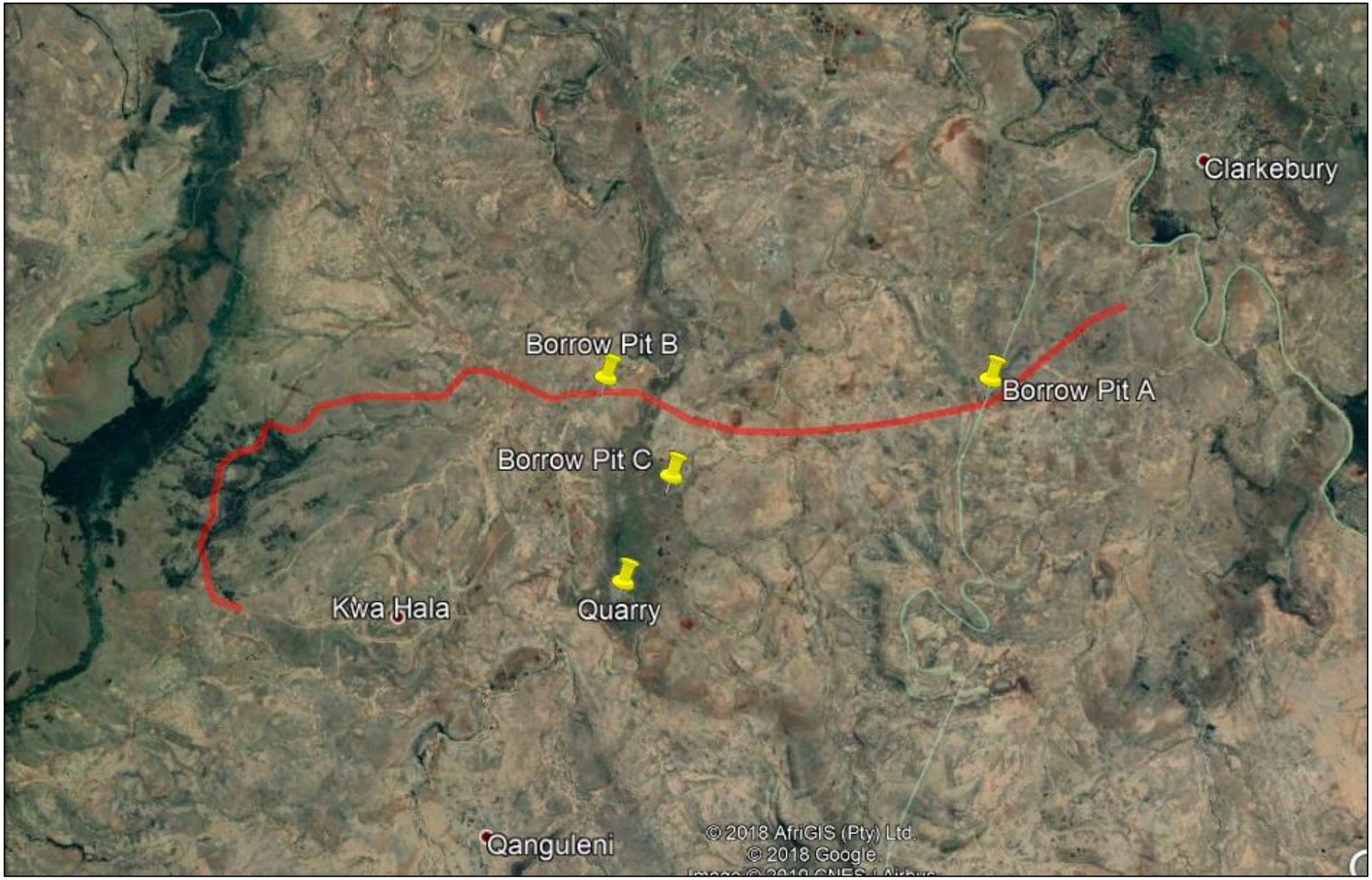
STEP 1: Please register by responding to our notification and invitation, with your name and contact details (details provided on cover page and below). As a registered I&AP you will be informed of all meetings, report reviews and project developments throughout the EIA process.
STEP 2: Register by returning the slip at the back of this document to CES.
STEP 3: Attend any meetings that may be held during the EIA process. As a registered I&AP, you will receive an invitation to attend such meetings.

CES is required to engage with all private and public parties that may be interested in and/or affected by the proposed project, in order to distribute information for review and comment in a transparent manner.

In the same light, it is important for I&APs to note the following:

1. In order for CES to continue engaging with you, please ENSURE that you register on our database by contacting the person below.
2. As the EIA process is regulated by specific review and comment timeframes, it is your responsibility to submit your comments within these timeframes.

Please send your enquiries and/or comments to:
Ms Caryn Clarke
25 Tecoma Street,
Berea, East London, 5214
P.O Box 8145,
Nahoon, East London, 5210
Tel: (043) 726 7809/8313
Fax: (043) 726 8352
Email: c.clarke@cesnet.co.za



Location of the road upgrade site (indicated in red).

I hereby wish to register as an Interested and Affected Party (I&AP) for the proposed project.

Name & Surname:

Organisation:

Postal Address:

Email:

Phone #:

Fax #:

My initial comments, issues or concerns are:

Other individuals, stakeholders, organisations or entities that should be registered are:

Name & Surname:

Organisation:

Postal address:

Contact details:

Please return details to: **Caryn Clarke**: P.O. Box 8145, Nahoon, East London, 5210
Telephone: (043) 726 7809 | Fax: (043) 726 8352 | Email: c.clarke@cesnet.co.za

Appendix E4: Letter of Notification

8 July 2019

Dear Stakeholders/Interested and Affected Parties

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT: PROPOSED UPGRADING OF ROAD DR08034 – PHASE 3 AND ASSOCIATED MINING ACTIVITIES

Notice is hereby given in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) Environmental Impact Assessment (EIA) Regulations (2014, as amended) GN 326, Section 41(2), of the intention to apply for Environmental Authorization to the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) and the Department of Mineral Resources (DMR). CES – Environmental and Social Advisory Services has been appointed as the Environmental Assessment Practitioner (EAP) to undertake the EIA for the proposed development.

Proponent, Activity & Location: The Eastern Cape Department of Transport proposes to upgrade a 20 km section of the DR08034 road from Clarkebury to the Mjanyana Hospital in the Eastern Cape. This will include the upgrading of bridges and culverts along the road as well as sourcing of hard rock material from three proposed borrow pits and a quarry.

Public Participation: A critical element of the EIA process is Public Participation. The objective is to contact, notify and inform as many members of the community, who may be interested and/or affected by the proposed development as possible so that any such party may fully participate in, interact with and inform the EIA process. A public meeting will be held to present the proposals and EIA process on:
Date and time: 10h00, Thursday, 11 July 2019
Venue: KuNtlalukana Hall – Komkhulu, Eastern Cape

Consultant: For more information, registration as an Interested and Affected Party (I&AP), or the submission of written comments, please contact the person listed below via telephone, fax, post or email within 30 days of this notice.

Coastal & Environmental Services
Attention: Ms Jaclyn Smith
P O Box 8145, Nahoon
East London
Tel: 043 726 7809
Fax: 043 726 8352
Email: j.smith@cesnet.co.za

We look forward to hearing from you.

Kind Regards

Ms Jaclyn Smith

Appendix E4: Initial Stakeholder notification proof

Caryn Clarke

From: Jacklyn Smith
Sent: Monday, July 8, 2019 5:09 PM
To: admmayor@amathole.gov.za; nontyatyambod@amathole.gov.za; joelenel@amathole.gov.za; mafumbul@amathole.gov.za; ysinyanya@chrishanidm.gov.za; ybooi@chrishanidm.gov.za; malefu@jgdm.gov.za; mzimase.dyomvana@gmail.com; ekhona.macingwane@gmail.com; fmtabebeko@gmail.com; s.mokhanya@ecphra.org.za; mlzote@ecphra.org.za; Briant.Noncembu@dedea.gov.za; cira.Ngetu@deaet.ecape.gov.za; siyabonga.gqalangile@dedea.gov.za; cecilia.gyan@dedea.gov.za; Fouriel4@dws.gov.za; deidre.watkins@dmr.gov.za; Vusi.Kubheka@dmr.gov.za; Hloniphile.Dlamini@dmr.gov.za; KedamaW@daff.gov.za; IzakVDM@daff.gov.za; mxolisiMa@daff.gov.za; NombuleloS@daff.gov.za; thozi.manyisana@agr.ecprov.gov.za; thozi.man@gmail.com; chiefmtirara@gmail.com
Subject: Proposed Upgrading of the Road DR08034 - Notice of EIA and Public Meeting
Attachments: Letter of notification of EIA.pdf

Dear Sir/Madam

Please find attached a letter of notification of Environmental Impact Assessment and Public Meeting for the proposed Upgrading of the Road DR08034 from Clarkebury to Mjanyana Hospital in the Eastern Cape.

Kind regards,
Jaclyn

CES
ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES

Jaclyn Smith
Environmental Consultant
CES - Environmental and social advisory services
25 Tecoma Street, Berea
East London | Eastern Cape | South Africa
Tel: +27 (43) 726 7809 | Cell: +27 (72) 555 0464
Jaclyn.Smith@eoh.com | www.cesnet.co.za

Appendix E4: Initial Landowner Email Notification proof:

From: Caryn Clarke
Sent: Tuesday, October 15, 2019 12:45 PM
To: amasinyane@mnquma.gov.za; yolisa.mdingi@ecdsd.gov.za; mzimase.dyomvana@gmail.com; lammax1886@gmail.com; ekhona.macingwane@gmail.com; phumza.edi@drdlr.gov.za; zukile.pityi@drdlr.gov.za; ysinyanya@chrishanidm.gov.za; joelenel@amathole.gov.za
Cc: Thina Mgweba; Hlumela Mduduma; Moeketsi Mosebi
Subject: NOTIFICATION OF BASIC ASSESSMENT PROCESS: PROPOSED UPGRADING OF ROAD DR08034 (PHASE 3) AND ASSOCIATED MINING ACTIVITIES, FROM CLARKEBURY TO THE MJANYANA HOSPITAL, EC.
Attachments: Letter of notification of EIA_CC.pdf; Layout.JPG

Dear Stakeholders,

Please find attached the Letter of Notification (and locality map) regarding the proposed upgrading of the Road DR08034 (and associated borrow pits) from Clarkebury to Mjanyana Hospital in the Eastern Cape. All stakeholders will be notified of the availability of the Draft Basic Assessment Reports (and how to access it) once available for 30-day public review.

If you have any queries or comments, please do not hesitate to contact me.

Kind regards

Caryn Clarke - M.Sc., *Cand.Sci.Nat.*
Senior Environmental Consultant
CES - Environmental and social advisory services

Appendix E4: Initial Community SMS notifications:

Appendix E4: Draft BAR availability notification (email):

Caryn Clarke

From:	Caryn Clarke
Sent:	Wednesday, November 27, 2019 5:34 PM
To:	admmayor@amathole.gov.za; nontyatyambod@amathole.gov.za; joelenel@amathole.gov.za; mafumbul@amathole.gov.za; pamela@amathole.gov.za; yolisam@amathole.gov.za; ysinyanya@chrishanidm.gov.za; ybooi@chrishanidm.gov.za; malefu@jgdm.gov.za; kibimc@webmail.co.za; khanyojoni@gmail.com; amasinyane@mnquma.gov.za; yolisa.mdingi@ecdsd.gov.za; mzimase.dyomvana@gmail.com; lammax1886@gmail.com; obosec@engcobolm.org.za; williamsg@engcobolm.org.za; ekhona.macingwane@gmail.com; fmtabebeko@gmail.com; dsibayi@sahra.org.za; s.mokhanya@ecphra.org.za; mlzote@ecphra.org.za; Gerry.pienaar@dedea.gov.za; Hlomela.Hanise@dedea.gov.za; cira.Ngetu@deaet.ecape.gov.za; siyabonga.gqalangile@dedea.gov.za; WanaXS@eskom.co.za; Mini Lonwabo; Fouriel4@dws.gov.za; deidre.watkins@dmr.gov.za; Vusi.Kubheka@dmr.gov.za; Hloniphile.Dlamini@dmr.gov.za; KedamaW@daff.gov.za; IzakVDM@daff.gov.za; mxolisiMa@daff.gov.za; NombuleloS@daff.gov.za; thozi.manyisana@agr.ecprov.gov.za; thozi.man@gmail.com; phumza.edi@drdlr.gov.za; zukile.pityi@drdlr.gov.za; nomuana.shoen@gmail.com; mtiraraMB@gmail.com; nzihlangu@gmail.com; Sibongile@gmail.com; fmwtabeko@gmail.com; raycarries@webmail.coza; mazosivevicky2013@gmail.com; zukisembashe@gmail.com
Cc:	cecilia.gyan@dedea.gov.za; Moeketsi Mosebi; Thina Mgweba; Keketso.Chabana@ectransport.gov.za
Subject:	Notification of availability of Draft Basic Assessment Report for public review for the proposed upgrading of Road DR08035 (PHASE 3) - DEDEAT Ref - EC121 &EC137/HO/LN1&3/M/-2-2019

Dear Stakeholders and I&APs,

This notification serves to inform you of the availability of the Draft Basic Assessment Report for the proposed upgrading of the Road DR08035 from Clarkebury to Mjanyana Hospital in the Eastern Cape (DEDEAT Ref - EC121&EC137/HO/LN1&3/M/-2-2019), for an extended 30 day period from 28 November 2019 until 30 January 2020 (to account for the DEDEAT closure period from 15 December 2019 – 15 January 2020).

An electronic copy of the Draft BAR can be downloaded from the CES website at: http://www.cesnet.co.za/public-documents or requested. A hard copy of the report has also been made available within the local community at the residence of Chief Dabulamanzi, Komkhulu, Eastern Cape (contact number – 083 977 9331).

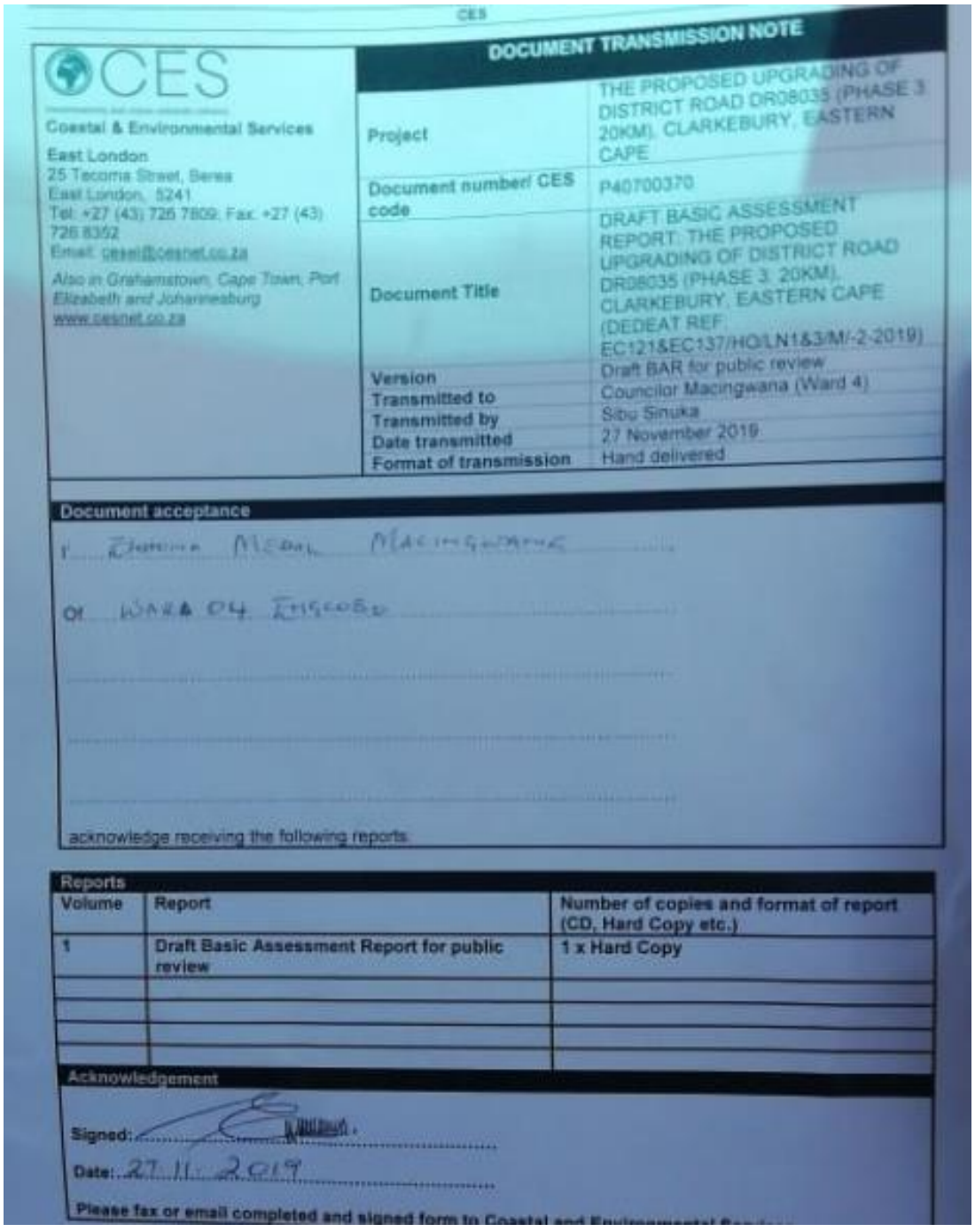
Please be so kind as to address comments, in writing, before the 30 January 2020, to:

- Attention - Ms Caryn Clarke (CES)
- Physical Address - 25 Tecoma Street, Berea, East London, 5214
- Postal Address - P.O Box 8145, Nahoon, East London, 5210
- Email: c.clarke@cesnet.co.za

Kind regards

Appendix E4: Draft BAR availability notification (sms's):

Appendix E4: Proof of delivery - Draft BAR community copy



CES

CES
Coastal & Environmental Services
East London
25 Tecoma Street, Berea
East London, 5241
Tel: +27 (43) 726 7809; Fax: +27 (43) 726 8352
Email: cesel@cesnet.co.za
Also in Grahamstown, Cape Town, Port Elizabeth and Johannesburg
www.cesnet.co.za

DOCUMENT TRANSMISSION NOTE

Project	THE PROPOSED UPGRADING OF DISTRICT ROAD DR08035 (PHASE 3 20KM), CLARKEBURY, EASTERN CAPE
Document number/ CES code	P40700370
Document Title	DRAFT BASIC ASSESSMENT REPORT: THE PROPOSED UPGRADING OF DISTRICT ROAD DR08035 (PHASE 3: 20KM), CLARKEBURY, EASTERN CAPE (DEDEAT REF: EC121&EC137/HO/LN1&3/M/-2-2019)
Version	Draft BAR for public review
Transmitted to	Councilor Macingwana (Ward 4)
Transmitted by	Sibu Sinuka
Date transmitted	27 November 2019
Format of transmission	Hand delivered

Document acceptance

I Zamuxolo Micah Macingwana

Of Ward 04 Engcobo

acknowledge receiving the following reports

Reports

Volume	Report	Number of copies and format of report (CD, Hard Copy etc.)
1	Draft Basic Assessment Report for public review	1 x Hard Copy

Acknowledgement

Signed:

Date: 27.11.2019

Please fax or email completed and signed form to Coastal and Environmental Services

Appendix E5: Stakeholder and I&AP database:

Stakeholders & Organisation	Name	Email	Tel
Eastern Cape Department of Transport	Chabana Keketso	Keketso.Chabana@ectransport.gov.za	079 344 1736
Amathole DM		admmayor@amathole.gov.za	043 7014000
Amathole DM		nontyatyambod@amathole.gov.za	
Amathole DM MM office		joelenel@amathole.gov.za	0437832257
Amathole Environment		mafumbul@amathole.gov.za	
Amathole District Municipality (ENV Manager)	Pamela	pamela@amathole.gov.za	
Amathole District Municipality (Community services)	Ms Yolisa Mniki	yolisam@amathole.gov.za	
Chris Hani DM MM	Ms Y Sinyanya	ysinyanya@chrishanidm.gov.za	
Chris Hani DM MM Secretary	Yonela Booi	ybooi@chrishanidm.gov.za	
Chris Hani DM Environmental Manager		malefu@jgdm.gov.za	
Mr Makhaya Cecil Kibi	Mnquma Local Municipality - Community Services	kibimc@webmail.co.za	
S Joni	Mnquma Local Municipality -Town Planning	khanyojoni@gmail.com	
Miss Asanda Masinyane	Mnquma - Environmental Officer	amasinyane@mnquma.gov.za	0474895800
Ms Yolisa Mdingi	Mnquma Local Municipality - Municipal Manager	yolisa.mdingi@ecdsd.gov.za	
Mbhashe LM MM	Mr S.V Poswa	mzimase.dyomvana@gmail.com	(043) 642 2811
Engcobo LM Manager	Mr Maxwell Moyo	lammax1886@gmail.com	(043) 642 2811
Engcobo Roads Dept		obosec@engcobolm.org.za	
Engcobo LM		williamsg@engcobolm.org.za	
Engcobo Ward 4 councilor	Cllr E Macingwane	ekhona.macingwane@gmail.com	0788596196
Mbhashe Ward 5 councilor	NTOMBENENE O. SOGAYISE		
Councilor		fmtabebeko@gmail.com	045 808 4000

Dumisani Sibayi	SAHRA	dsibayi@sahra.org.za	
ECPHRA	Sello Mokhanya	s.mokhanya@ecphra.org.za	
ECPHRA	Mzikayise L Zote	mlzote@ecphra.org.za	(043) 701 0248
DEDEAT (Amathole)	Gerry Pienaar	Gerry.pienaar@dedea.gov.za	
DEDEAT (Amathole)	Hlomela Hanise	Hlomela.Hanise@dedea.gov.za	041 403 66 15
DEDEAT (Chris Hani)	Cira Ngetu	cira.Ngetu@deaet.ecape.gov.za	041 403 66 22
DEDEAT (Regional office)	Siyabonga Gqalangile	siyabonga.gqalangile@dedea.gov.za	
	Cecilia Gyan	cecilia.gyan@dedea.gov.za	
DWS	Lizna Fourie	Fouriel4@dws.gov.za	
DMR		deidre.watkins@dmr.gov.za	
DMR Mineral Regulation		Vusi.Kubheka@dmr.gov.za	
DMR (Mineral Regulation)		Hloniphile.Dlamini@dmr.gov.za	
DAFF	Mr Kedama	KedamaW@daff.gov.za	
DAFF	Isaac vd Merwe	IzakVDM@daff.gov.za	
DAFF	Mxolisi Dan Malgas	mxolisiMa@daff.gov.za	
DAFF	Sandlana N	NombuleloS@daff.gov.za	
DAFF	T Manyisana	thozi.manyisana@agr.ecprov.gov.za thozi.man@gmail.com	
E.Phumza	Department of Rural Development and Land Reform (DRDLR)	phumza.edi@drdlr.gov.za	
Zukile Pityi	Department of Rural Development and Land Reform (DRDLR)	zukile.pityi@drdlr.gov.za	
Xolani Wana	Eskom: Eastern Cape Operating Unit	WanaXS@eskom.co.za	
I &APS	**Name**	**Email**	**Tel**
Chief	**Chief Dabulamanzi**		**0839779331**
Community members	Nomuana Zihlanua	nomuana.shoen@gmail.com	0839504369
	Nokanyo Mtirara	mtiraraMB@gmail.com	0834226790
	Nomvana Zihlangu	nzihlangu@gmail.com	0738133077

	No-Amen Kutu		0640258194
	Sibongile Tembeni	Sibongile@gmail.com	0734846026
	M.J Mati		0719543953
	M.W Mose		0784297913
	F. Mwtabeko	fmwtabeko@gmail.com	0835211007
	R. Carries	raycarries@webmail.coza	0835211007
	N.Hlangadala		0734623775
	S. Ndude		0739274003
	N. Ngesimani		0785052842
	N. Dyasi		0781525472
	N. Ndude		0737549212
	N. Funola		0781829570
	N. Dila		0604207278
	O. Sipendu		0655691882
	S. Bokwe		0787778977
	N.V. Mazosive	mazosivevicky2013@gmail.com	0784421849
	M. Sijora		0737157846
	M. Ndude		0735468192
	N. Ndude		0782604293
	N.Mqoqi		0735080887
	Mrhilityane		0710058219
	C.T Mazosiwe		0782214229
	N. Noluyanda		0780599179
	Z. Ndude		0789291695
	P. Nyokwe		0739588485
	K. Nodumo		078 015 2012
	A. Xalabile		063 806 8895

	P. Sladile		063 393 2088
	T. Busakwe		073 686 0742
	N. Macosa		083 430 2753
	A. Mqotyana		081 034 4574
	J. Madoyi		078 751 2000
	A. Ngwase		063 160 7368
	Z. Dinisile		073 125 1016
	N. Gqosha		073 840 5597
	C.Rodi		083 420 6166
	Z.Mbashe	zukisembashe@gmail.com	064 007 2813
	L. Zalingele		078 723 0549
	M.Zalingqelo		063 594 9812
	L. Sotha		060 488 2918
	B. Tafeni		083 739 7959
	N. Mazosilwe		073 341 7049
	X. Busakwe		083 354 1522
	A. Mtoti		078 433 3046
	S. Fihla		078 032 5988
	Phatiswa		071 023 9420
	Nowitha		073 091 4141
	N. Makwedini		071 069 2725
	K.Kolo		078 322 6870
	B. Mpiti		073 371 6761
	X. Mpitikezi		073 720 0572
	B. Thandathu		073 047 8052
	Viwe Tukani		078 630 3420
	N. Makeleni		078 416 3622

	M.A. Kolo		078 512 4458
	L. Hlangadala		078 050 1345
	L. Nhloko		072 590 4919
	Simon Mose		065 611 8809

APPENDIX E6: ISSUES AND RESPONSES TRAIL:

Initial Notifications: Stakeholder Notification of Basic Assessment			
Date	**Consultant**	**Method**	**Notification**
8 July 2019	Jaclyn Smith - CES	Email	*Dear Sir/Madam* *Please find attached a letter of notification of Environmental Impact Assessment and Public Meeting for the proposed Upgrading of the Road DR08035 from Clarkebury to Mjanyana Hospital in the Eastern Cape.* *Kind regards,* *Jaclyn Smith*
Initial Notifications: Landowner Notification of Basic Assessment			
15 October 2019	Caryn Clarke - CES	Email	*Dear Stakeholders,* *Please find attached the Letter of Notification (and locality map) regarding the proposed upgrading of the Road DR08035 (and associated borrow pits) from Clarkebury to Mjanyana Hospital in the Eastern Cape. All stakeholders will be notified of the availability of the Draft Basic Assessment Reports (and how to access it) once available for 30-day public review.* *If you have any queries or comments, please do not hesitate to contact me.* *Kind regards* *Caryn Clarke*
15 October 2019	Caryn Clarke - CES	Bulk SMS	*Dear Stakeholder, you are hereby notified of CES's intent to submit an application for environmental and mining authorisation on behalf of the EC Dept. of Transport to upgrade a 20 km section of the DR08035 road from Clarkebury to the Mjanyana Hospital in the Eastern Cape. This will include the upgrading of bridges and culverts along the road as well as sourcing of hard rock material from three proposed borrow pits and a quarry. For further information, please contact Caryn Clarke at 043 726 7809, or c.clarke@cesnet.co.za.*

I&AP comments from initial notification				
Date	**I&AP**	**Method**	**I&AP Comment**	**CES Response**
30 October 2019	Councilor E Macingwane (Ward 4)	Telephonic	CES received a phone call from Councilor Macingwane regarding the community's concerns over the graves located in close proximity to the road reserve, He also mentioned he would prefer if the Heritage Specialist could return to the site to be accompanied by members of the community to ensure all grave sites have been identified.	Ms Caryn Clarke of CES agreed with Councilor Macingwane and agreed to arrange for an additional site visit with the Heritage Specialist. This site visit took place on the 11 November 2019. The community members, together with Councilor Macingwane, CES, MBSA Engineers and the Heritage Specialist (Mr Neels Kruger of Exigo), were able to verify the Heritage Specialist findings from his previous site visit. The heritage report was then updated to include for new findings/updates from the site visit.
Notification of availability of the Draft Basic Assessment Report for public review				

Date	Consultant		Notification
26 November 2019	Caryn Clarke - CES	*Email*	*Dear Stakeholders and I&APs,* *This notification serves to inform you of the availability of the Draft Basic Assessment Report for the proposed upgrading of the Road DR08035 from Clarkebury to Mjanyana Hospital in the Eastern Cape (DEDEAT Ref - EC121&EC137/HO/LN1&3/M/-2-2019), for a period of 30 days from 28 November 2019 until 30 January 2020 (excluding DEDEAT closure period from 15 December 2019 – 15 January 2020).* *An electronic copy of the Draft BAR can be downloaded from the CES website at: http://www.cesnet.co.za/public-documents or requested. A hard copy of the report has also been made available within the local community at the residence of Chief Dabulamanzi, Komkhulu, Eastern Cape (contact number – 083 977 9331).* *Please be so kind as to address comments, in writing, to:* • *Attention - Ms Caryn Clarke (CES)* • *Physical Address - 25 Tecoma Street, Berea, East London, 5214* • *Postal Address - P.O Box 8145, Nahoon, East London, 5210* • *Email: c.clarke@cesnet.co.za* *Kind regards* *Caryn Clarke*
26 November 2019	Caryn Clarke - CES	Bulk SMS	English: *Dear Stakeholder, the Draft Basic Assessment Report for the proposed upgrading of the Road DR08035 from Clarkebury to Mjanyana Hospital is available for public review from 28 November 2019 until 30 January 2020. A copy of the report is available at the residence of Chief Dabulamanzi, Komkhulu, or can be downloaded from CES website: http://www.cesnet.co.za/public-documents. Submit any comments in writing to email: c.clarke@cesnet.co.za or 25 Tecoma Street, Berea, East London, 5214.* Xhosa: *Isaziso: Icwecwe lokuqala lophando olungekho nzulu lokuchaphazeleka kwendalo kwendalo nokusingqongileyo,olu malunga nokuphuculwa kwendlela esuka e Clarkerbury ukuya kwisibhedlele Mjanyana luya fumaneka ukusukela ngomhla wama 28 November 2019 ukuya kumhla 30 January 2020, eli cwecwe lungahlolwa ngumtu wonke onomdla, liyafumaneka kwikhaya lika Nkosi Dabulamanzi, Komkhulu, okanye ungazenzela ushicilelo kwi Webhusayithi yethu:http//www.cesnet.co.za/*

			public-documents. Uluvo lwakho malunga malunga nokuctywayo ungalufaka ngembalelwano kunye ne imeyili: c.calrke@cesnet.co.za okanye 25 Tecoma Street, Berea, east London,5214	
I&AP comments during 30-day public review period				
Date	**I&AP**	**Method**	**I&AP Comment**	**CES Response**
10 February 2020	DEDEAT	Email	Please refer to the attached letter below from DEDEAT regarding their comments on the Draft BAR.	• The need to verify ECBC terrestrial conservation biodiversity during the authority site visit has been noted by CES. • All heritage features, including graveyards, were captured in the Archaeological Impact Assessment Report, which was included as Appendix D3 of the Draft BAR, and was made available for public review during the period 28 November 2019 until 30 January 2020. • In addition, a second site visit took place on the 11 November 2019, which included several community members, together with Councilor Macingwane (Ward 6), CES, MBSA Engineers and the Heritage Specialist (Mr Neels Kruger of Exigo). The purpose of the meeting was for the community members to verify/add/update the Heritage Specialist's findings from his previous site visit. The heritage report was then updated to include for new findings/updates from the site visit, prior to the report being made available for public review. • Please refer to **Section 6. CULTURAL/HISTORICAL FEATURES**, contained in the Final BAR above, for a summary of all heritage/archaeological findings, as well as a description of all sensitive grave sites. All grave sites identified on site can be conserved *in situ* provided that the mitigation measures assigned to each site are adhered to, **except for grave site BP12 which will require relocation** (refer to page 62 of the Archaeological Impact Assessment Report (Appendix D3 of the Final BAR))
Summary of Public Meeting				
Public meeting was held on the 11 July 2019 at the KuNtlalukana Hall – Komkhulu, Eastern Cape. Refer to attached meeting minutes and attendance register below.				

PUBLIC MEETING MINUTES AND ATTENDANCE REGISTER:

DEDEAT DRAFT BAR COMMENTS RECEIVED:

Province of the
EASTERN CAPE
ECONOMIC DEVELOPMENT, ENVIRONMENTAL AFFAIRS & TOURISM

Ref: *EC121&EC137/HO/LN1&2/M/02-2019* **Contact Person:** Cecilia Gyan
Cell: 043 605 7099 | **Email:** Cecilia.gyan@dedea.gov.za

Web: www.dedea.gov.za

Coastal and Environmental Services (Pty) Ltd
25 Tecoma Street
P.O Box 8145
Berea
East London
5214

Tel : +27 43 726 7809
Fax : +27 43 726 8353
Email : c.clarke@cesnet.co.za

Attention Ms. Caryn Clarke

COMMMENTS ON THE DRAFT REPORT: APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION IN TERMS OF SECTION 24(5) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA), ACT OF 107 OF 1998 AS AMEND: PROPOSED UPGRADE OF APPROXIMATELY 20KM OF DISTRICT ROAD DR08035 FROM THE INTERSECTION WITH THE N2 TO THE INTERSECTION WITH R61 (CLARKEBURY), EASTERN CAPE PROVINNCE

The above matter bears reference. The Department of Economic Development, Environmental Affairs and tourism (hereunder referred to as the Department), is in receipt of your Draft Basic Assessment Report (BAR) dated November 2019 and received by the Department on 29 November 2019.

Your application referenced EC121&EC137/HO/LN1&2/M/02-2019. Please note the following comments.

Submission of basic assessment report and environmental management programme, and where applicable closure plant to the competent authority

19. (1) where basic assessment must be applied to an application, the applicant must, within 90 days of receipt of the application by the competent authority, submit to the competent authority—

(a) a basic assessment report, inclusive of specialist reports, an EMPr and where applicable a closure plan, which has been subjected to a public participation process of at least 30 days and which reflects the incorporation of comments received, including any comments of the competent authority

The ECBC terrestrial conservation biodiversity presented on report will be verified by the competent authority when conducting site visit for the proposed development as a portion on the development fall under ECB 1.

The grave yards in terms of the possible relocation and the buffers must be included in the Public Participation to ensure that the community are in support of the project and understand the implications thereof.

There is a need to indicate in the reports the cemeteries are likely to be affected in terms of the realignment of the proposed tar road and the EIA should address it whether it would lead to realignment or relocation in such instances.

Province of the
EASTERN CAPE
ECONOMIC DEVELOPMENT,
ENVIRONMENTAL AFFAIRS & TOURISM

Please take note that the due date for the submission of the Final Basic Assessment Report (FBAR) is **19 February 2020.** The Final Basic Assessment Report must also be submitted in a soft copy.

Hope you find the above in order.

Regards,

10/02/2020

Prepared by
Intern: Ms K Leve
ENVIRONMENTAL IMPACT MANAGEMENT OFFICER

Date

10/02/2020

Mrs C. Gyan
ASSISTANT MANAGER: ENVIRONMENTAL IMPACT MANAGEMENT
BHISHO (HEAD OFFICE)

Date

APPENDIX F: ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)

APPENDIX G: IMPACT ASSESSMENT

Appendix G1. Assessment Methodology:

Methodology for Assessing Impacts

CES has developed an evaluation criterion of impacts in accordance with the requirements outlined in Appendix 2 of the EIA Regulations (2014, as amended). This scale takes into consideration the following variables:

- Nature: negative or positive impact on the environment.
- Type: direct, indirect and/or cumulative effect of impact on the environment.
- Significance: The criteria in the table below are used to determine the overall significance of an activity. The impact effect (which includes duration; extent; consequence and probability) and the reversibility/mitigation of the impact are then read off the significance matrix in order to determine the overall significance of the issue. The overall significance is either negative or positive and will be classified as low, moderate or high.
- Consequence: the consequence scale is used in order to objectively evaluate how severe a number of negative impacts might be on the issue under consideration, or how beneficial a number of positive impacts might be on the issue under consideration.
- Extent: the spatial scale defines the physical extent of the impact.
- Duration: the temporal scale defines the significance of the impact at various time scales, as an indication of the duration of the impact.
- Probability: the likelihood of impacts taking place as a result of project actions arising from the various alternatives. There is no doubt that some impacts would occur (e.g. loss of vegetation), but other impacts are not as likely to occur (e.g. vehicle accident) and may or may not result from the proposed development and alternatives. Although some impacts may have a severe effect, the likelihood of them occurring may affect their overall significance.
- Reversibility: The degree to which an environment can be returned to its original/partially original state.
- Irreplaceable loss: The degree of loss which an impact may cause.
- Mitigation potential: The degree of difficulty of reversing and/or mitigating the various impacts ranges from very difficult to easily achievable. The four categories used are listed and explained in **Error! Reference source not found.** below. Both the practical feasibility of the measure, the potential cost and the potential effectiveness is taken into consideration when determining the appropriate degree of difficulty.

Ranking of Evaluation Criteria

NATURE	
Positive	Beneficial/positive impact.
Negative	Detrimental/negative impact.
TYPE	
Direct	Direct interaction of an activity with the environment.

Indirect	Impacts on the environment that are not a direct result of the project or activity.
Cumulative	Impacts which may result from a combination of impacts of this project and similar related projects.
DURATION	
Short term	Less than 5 years.
Medium term	Between 5-20 years.
Long term	More than 20 years.
Permanent	Over 40 years or resulting in a permanent and lasting change that will always be there.
EXTENT	
Localised	Impacts affect a small area of a few hectares in extent. Often only a portion of the project area.
Study area	The proposed site and its immediate environments.
Municipal	Impacts affect the municipality, or any towns within the municipality.
Regional	Impacts affect the wider district municipality or the Eastern Cape Province as a whole.
National	Impacts affect the entire country.
International/Global	Impacts affect other countries or have a global influence.
CONSEQUENCE	
Slight	Slight impacts or benefits on the affected system(s) or party(ies).
Moderate	Moderate impacts or benefits on the affected system(s) or party(ies).
Severe/ Beneficial	Severe impacts or benefits on the affected system(s) or party(ies).
PROBABILITY	
Definite	More than 90% sure of a particular fact. Should have substantial supportive data.
Probable	Over 70% sure of a particular fact, or of the likelihood of that impact occurring.
Possible	Only over 40% sure of a particular fact, or of the likelihood of an impact occurring.
Unsure	Less than 40% sure of a particular fact, or of the likelihood of an impact occurring.
REVERSIBILITY	
Reversible	The activity will lead to an impact that can be reversed provided appropriate mitigation measures are implemented.
Irreversible	The activity will lead to an impact that is permanent regardless of the implementation of mitigation measures.
IRREPLACEABLE LOSS	
Resource will not be lost	The resource will not be lost/destroyed provided mitigation measures are implemented.
Resource will be partly lost	The resource will be partially destroyed even though mitigation measures are implemented.

Resource will be lost	The resource will be lost despite the implementation of mitigation measures.
MITIGATION POTENTIAL	
Easily achievable	The impact can be easily, effectively and cost effectively mitigated/reversed.
Achievable	The impact can be effectively mitigated/reversed without much difficulty or cost.
Difficult	The impact could be mitigated/reversed but there will be some difficultly in ensuring effectiveness and/or implementation, and significant costs.
Very Difficult	The impact could be mitigated/reversed but it would be very difficult to ensure effectiveness, technically very challenging and financially very costly.

Description of significance ratings

SIGNIFICANCE RATING		DESCRIPTION
LOW NEGATIVE	**LOW POSITIVE**	The impacts on this issue are acceptable and mitigation, whilst desirable, is not essential. The impacts on the issue by themselves are insufficient, even in combination with other low impacts, to prevent the development being approved. Impacts on this particular issue will result in either positive or negative medium to short term effects on the social and/or natural environment.
MODERATE NEGATIVE	**MODERATE POSITIVE**	The impacts on this issue are important and require mitigation. The impacts on this issue are, by themselves, insufficient to prevent the implementation of the project, but could in conjunction with other issues with moderate impacts, prevent its implementation. Impacts on this particular issue will usually result in either a positive or negative medium to long-term effect on the social and/or natural environment.
HIGH NEGATIVE	**HIGH POSITIVE**	The impacts on this issue are serious, and if not mitigated, they may prevent the implementation of the project (if it is a negative impact). Impacts on this particular issue would be considered by society as constituting a major and usually a long-term change to the (natural and/or social) environment, and will result in severe effects or if positive, substantial beneficial effects.

APPENDIX H: PROOF OF WULA APPLICATION IN PROGRESS

Reply Reply All Forward

E Ewulaas_Do_Not_Reply@dws.gov.za Caryn Clarke Sun 9:2

e-WULAAS : Request to be linked to a client : Approved.

Dear Caryn Clarke

You have requested to be linked to the client : EASTERN CAPE ROADS AND PUBLIC WORKS

Your reference number for the request is : CT12086

Application description : Upgrade of District Road DR08035 from Clarkebury to Mjanyana Hospital, Eastern Cape

Your request have been approved, you can proceed to apply for water use on behalf of the client.

You can access the e-wulaas portal from the DWS website : www.dws.gov.za/ewulaas

Thank you,
e-WULAAS Team