

	(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. This report format is current as of **08 December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
- 3. 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.
- 4. Where applicable **tick** the boxes that are applicable in the report.
- 5. An incomplete report may be returned to the applicant for revision.
- 6. 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.
- 7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
- 8. No faxed or e-mailed reports will be accepted.
- 9. The signature of the EAP on the report must be an original signature.
- 10. The report must be compiled by an independent environmental assessment practitioner.

- 11. 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.
- 12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
- 13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.
- 14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
- 15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

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

YES	NO
	X

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

INTRODUCTION

The KZN Department of Transport (DOT) proposes to upgrade the existing local road, to a type 7A gravel road, 3.360 km in length and 6 m in width that conforms to DOT standards. The existing road will be upgraded in one of the Msinga villages off P17. There is an urgent need to ensure safe and reliable means of access for the local community. The existing track is not suitable, and erosion is evident as a direct result of poor drainage. The upgrading of the existing track to a gravel road will address such issues and improve access for the local community to basic amenities.



Photo 1: showing existing road



Photo 2: showing gully erosion as a result of poor drainage of the existing road



Photo 3: showing community dwellings along existing track

b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GNR 983 (Listing Description of project activity Notice 1)

Listing Notice 1 of 2014, Listed The proposed construction of the local road **Activity 24.** from a mud track to a gravel road 6 m in

The development of -

- (i) a road for which an environmental reserve of 20 m. authorization was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or
- (ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;

but excluding-

- (a) roads which are identified and included in activity 27 in Listing Notice 2 of 2014; or
- (b) roads where the entire road falls within an urban area.

The proposed construction of the local road from a mud track to a gravel road 6 m in width, and a length of 3.360 km with a road reserve of 20 m.

Activity 56.

The widening of a road by more than 6 length. meters, or the lengthening of a road more than 1 kilometre-

- (i) where the existing reserve is wider than 13.5 m;
- (ii) where no reserve exists, where the existing road is wider than 8 m; excluding where widening or lengthening occur inside urban areas.

Listing Notice 1 of 2014, Listed According to DOT upgrade the proposed road length is approximately 3.360 km in

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;
- the design or layout of the activity; (c)
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- the option of not implementing the activity. (f)

a) Site Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The preferred route was chosen based on the fact that	28° 51′ 50.12″ S	30° 40′ 36.53″ E
a local road currently exists and no new road will be		
constructed minimizing the impact to the receiving		
environment. This alternative has shown to be the best		
practical option. The road design has taken numerous		
engineering methodologies into consideration which		
has a minimal impact on the environment, by improving		
drainage and reducing erosion along the road. The		
road has been designed according to DOT standards,		
type 7A gravel road.		
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
No alternate activities or routes have been investigated	I. N/A	N/A
It is not feasible to construct a new road which will have	е	
a negative impact on the environment.		
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)
N/A	N/A	N/A

In the case of linear activities:

Alternative: Latitude (S): Longitude (E):

Alternative S1 (preferred)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

28° 51′ 50.12″ S	30° 40′ 36.53″ E
28° 52´ 28.61″ S	30° 41′ 07.10″ E
28° 53′ 05.30″ S	30° 41′ 17.12″ E

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

N/A	N/A
N/A	N/A
N/A	N/A

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

N/A	N/A
N/A	N/A
N/A	N/A

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
The proposed construction of a local road from a mud	S 28° 51′ 50.12″	E 30° 40′ 36.53″
track to a gravel road 6 m in width, and a length of 3.360		
km. The road will be upgraded on an existing track,		
which has become prone to erosion and inundated		
during periods of high rainfall.		
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
No alternate road designs/routes have been investigated	N/A	N/A
as the proposed/preferred designs/routes meet DOT		
standards for gravel roads, and the proposed		
construction is an upgrade of an existing track.		
Furthermore, the local road:		
1. Is within the budget available from Department of		
Transport to establish a gravel road.		
2. Have limited impact on the ecological environment as		
no new road will be constructed.		
Alternative 3	1	
Description	Lat (DDMMSS)	ong (DDMMSS)
N/A	N/A	N/A

c) Technology alternatives

Alternative 1 (preferred alternative)

Figure 1 below: shows the drawing of the type 7A road (Drawing number SD0211). Refer to the plan of the road in **Appendix C** - Facility Illustration for a more detailed design.

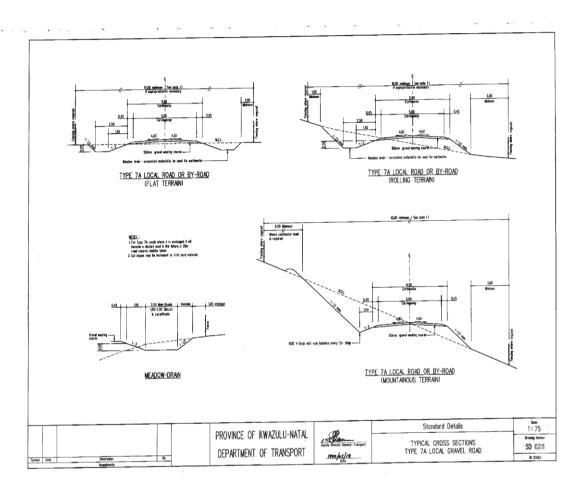


Figure 1: showing the type 7A local gravel road (Drawing no. SD0211)

N/A		
	Alternative 2	
N/A		
	Alternative 3	
N/A		

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

No alternate technologies have been investigated as the proposed/preferred design:

- 1. The current design is in accordance with DOT standards for gravel roads.
- 2. Is within the budget available from Department of Transport to establish a Gravel road.
- 3. Have limited impact on the ecological environment as no new road will be constructed.
- 4. The best practical means approach has been adopted and the design favorably suits the ambience of the surrounding environment.

e) No-go alternative

No gravel road will be constructed, therefore there will be no negative impacts associated with construction activity. However, there will also be no positive impacts associated with the road construction such as the improved connectivity and access for local residents. Residents that make use of the road will continue to experience disruptions, as access is frequently overtopped by flood water, making access difficult at times of high flow. Erosion along the road is evident in areas as a direct result of poor drainage of the existing road. According to the tribal court, community members are left stranded and cannot access basic amenities during periods of high rainfall as the existing road becomes impossible to use. The proposed route is transformed by existing footpaths and highly degraded, most natural vegetation have been invaded by alien vegetation along the track.

3. PHYSICAL SIZE OF THE ACTIVITY

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

Alternative:	Size of the activity:
Alternative A1 ¹ (preferred activity alternative)	N/A
Alternative A2 (if any)	N/A m ²
Alternative A3 (if any)	N/A m ²

or, for linear activities:

Alternative:	Length of the activity:
Alternative A1 (preferred activity alternative)	3.360 km
Alternative A2 (if any)	N/A m
Alternative A3 (if any)	N/A m

b) 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)	N/Am ²
Alternative A2 (if any)	N/Am ²
Alternative A3 (if any)	N/Am ²

 $^{^{\}rm 1}$ "Alternative A.." refer to activity, process, technology or other alternatives.

4. SITE ACCESS

Does ready access to the site exist?

If NO, what is the distance over which a new access road will be built

YES	NO
x	
	N/A m

Describe the type of access road planned:

N/A

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.

5. ACTIVITY MOTIVATION

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

1. Is the activity permitted in terms of the property's existing land use rights?

| YES | NO | Please explain

The local road is located off the P17 main road providing access to the local communities, and school children. The gravel road will be constructed to ensure safe access to pedestrians and motorists. This activity is in line with the property's existing land use rights.

- 2. Will the activity be in line with the following?
 - (a) Provincial Spatial Development Framework (PSDF)

 YES

 NO Please explain

The Dundee region is predominately rural and access to basic developmental areas is limited. Therefore the activity is in line with the PSDF which outlines road construction as a priority area within the rural municipality such as the uMzinyathi municipality.

(b) Urban edge / Edge of Built environment for the area	YES X	NO	Please explain
The road is not in a built urban environment thus urban	edge po	olicies	are not
affected.			
(c) Integrated Development Plan (IDP) and Spatia			
Development Framework (SDF) of the Local Municipality			
. , , , , , , , , , , , , , , , , , , ,		NO	Diagon ovalois
(e.g. would the approval of this application compromise		X	Please explain
the integrity of the existing approved and credible			
municipal IDP and SDF?).			
In accordance with the IDP (2012 - 2017) of the I	Msinga	Muni	cipality, the
Department of Transport has planned for the maintenance	J		. ,
upgrade of local roads was identified as a priority in the arc			
so as funding is available (IDP, 2012-2017, p6).	he Ms	singa	area lacks
infrastructure, therefore, finds it difficult to attract investment	nent int	o the	municipality
(IDP, 2012 – 2017, p8). uMzinyathi municipality	has	a lov	w level of
telecommunications infrastructure in place (IDP, 2012 – 2017, p31).			
	YES		
(d) Approved Structure Plan of the Municipality		NO	Please explain
	X		
The tribal authority has expressed the communities' conce	erns w.i	r.t the	need for an
access route that is not inundated during high rainfall periods. He expressed these			
access route that is not inundated during high rainfall peri	ods. He	e expr	essed these
		-	
concerns to the local municipality which were documented		-	
concerns to the local municipality which were documented in line with the approved structure plan of the municipality.	. There	-	
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted	. There	-	
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this	. There	efore the	
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted	. There	efore the	ne activity is
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this	. There	efore the	
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing	YES	efore the	ne activity is
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and in	YES	efore the	ne activity is
concerns to the local municipality which were documented in line with the approved structure plan of the municipality. (e) An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and it so, can it be justified in terms of sustainability	YES	efore the	ne activity is

(f) Any other Plans (e.g. Guide Plan)	YES	NO X	Please explain
N/A			
3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?		NO	Please explain
The Msinga municipal development objectives are mainly a	aligned	with 1	National Key
Performance Areas (KPA's) which include Institution Transformation; Basic service Delivery; Good Governance Local Economic Development; and Financial Viability (IDP, 2)	and P	ublic F	Participation;
4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)	YES	NO	Please explain
Community members are often left stranded during p	eriods	of h	igh rainfall,
therefore, the upgrading of the existing track to a gravel roto members of the community. Training opportunities members of the community during the construction profincrease and skills will be transferred to the local construction process local labour will be sourced (rotontractor.	will alsocess.	so be Emple Inity.	offered to oyment will During the
Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? All necessary services are available for the activity to committee.	YES X	NO	Please explain

6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on NO YES Please explain the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? No infrastructure planning is envisaged by the municipality w.r.t this project. The project costs are borne by the Department of Transport. 7. Is this project part of a national programme to address an NO YFS Please explain issue of national concern or importance? The proposed activity is site specific and is at a localized level. 8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the YES NO Please explain contextualisation of the proposed land use on this site within Χ its broader context.) The site location is highly degraded and natural vegetation is disturbed with the presence of alien vegetation. Therefore the location factors favour this activity, as the site will be rehabilitated once construction is completed. 9. Is the development the best practicable environmental option YES NO Please explain for this land/site? Χ The proposed site has been assessed and a favorable position for the road construction has been identified with all stakeholders. This will significantly decrease the overall costs of proposing to construct an entirely new gravel road. The upgrade of the existing track will minimize the negative environmental impacts in the surrounding area. 10. Will the benefits of the proposed land use/development YES NO |Please explain outweigh the negative impacts of it? The proposed construction of the road will positively impact the local community by providing access to basic amenities, and minimizing the negative impact of flooding, and soil erosion.

11. Will the proposed land use/development set a precedent for NO YES Please explain similar activities in the area (local municipality)? Χ No precedent will be set in the area, however the upgrade of the road from a track to a gravel road will improve accessibility for community members. 12. Will any person's rights be negatively affected by the NO YFS Please explain proposed activity/ies? Χ During the Public Participation Process no person expressed the view that the proposed activity will directly affect them negatively, all stakeholders fully supported the project proposal. No dwellings will be relocated as the existing track does not transverse any properties or infringe on the rights of the residents. 13. Will the proposed activity/ies compromise the "urban edge" as NO YES Please explain defined by the local municipality? Χ The project is located in a rural area, and therefore the urban edge is not affected. 14. Will the proposed activity/ies contribute to any of the 17 NO YES Please explain Strategic Integrated Projects (SIPS)? Χ This is a localized site specific activity, and will benefit the local community members, but contributes to SIPS.

15. What will the benefits be to society in general and to the local communities?

Please explain

There is an urgent need to ensure safe and reliable means of transversing the road for both vehicles and pedestrians, which will promote economic growth in the area as well as make travelling for basic amenities, education and work feasible for the local communities. The existing road is prone to flooding and more importantly access to basic amenities is limited during high rainfall periods. The establishment of local roads lays the foundation for further and knock-on development, thereby leading to the upliftment of the society. While the local road may not have benefits as far reaching as to society in general, it is paving the way for upliftment of disadvantaged societies. The majority of the population has no formal education and is illiterate. Most people earn a living from governmental social grants, pensions and others from informal trading. Development of this area is therefore paramount and the establishment of this road can be considered the first step in this direction toward upliftment of the community. The road will also allow for public transport modes to cater to the local community. The construction of the road would contribute to the community in the following ways:

- Vehicles would not have to endure rugged terrain.
- Communities will have easier access to public and governmental transportation.
- Travelling route distances would be decreased.
- Will increase the safety of the people within the community.
- Response and delivery time would be increased for public and emergency services.
- Easier travelling routes for basic needs, schools and medical centers.

16. Any other need and desirability considerations related to the proposed activity?

Please explain

According to the IDP (2012 – 2017) the upgrading of local roads is a priority within the area. The area is predominately rural and developmental initiatives are limited w.r.t funding. The Department of Transport has funded the project and similar projects within the District. Communities expressed their excitement for the project, as they are of the view that the Government is taking their concerns of development seriously.

17. How does the project fit into the National Development Plan for 2030?

Please explain

The National Development Plan for 2030 sets out strategic goals in terms of access to basic services and amenities. Although this project is site specific in nature, it contributes to the cumulative effect of developmental nodes of rural communities to the urban environments.

18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.

According to section 23 of NEMA the appropriate environmental management tools were applied effectively. The EAP is an independent person, appointed by Nankhoo Engineers to determine all negative as well as positive impacts of the proposed activities might have on the environment. Mitigation measures were also proposed in this report. All the information compiled by the EAP was rated in a scoring matrix, taking environmental, cultural heritage and ecological issues into account. The BAR will be circulated into the public domain for a Public Participation Process as described in NEMA. All comments received during the entire BAR process will be recorded as part of the Issues and Responses Report. Particulars regarding this Process have been included in **Appendix D.** The impacts that have been identified must be managed and mitigated. These measures have been included in the Environmental Management Plan attached as **Appendix E**.

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

All of these principles have been taken into account as the construction of this road will be socially sustainable due to continuous access that will be provided to local communities. Communities will therefore be able to access basic amenities at all times. Economically, the proposed activity will ensure that communities gain access to the schools, transportation services, etc. All factors mentioned in Section 2 (4) of NEMA were taken into consideration, assessed and discussed in **Section D.** Through Section 2 of NEMA it is understood that the principles as set out in this section have been taken into account through the proper application of a Basic Assessment Process as described by NEMA, and by assessing the predicted and actual impacts of the proposed activity in order to assist the Competent Authority in adequately making an informed decision.

6. 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:

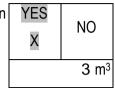
Title of legislation, policy	Applicability to the project	Administering authority	Date
or guideline			
National	Environmental Authorisation is	Department of	1998
Environmental	required in terms of Regulation R	Environmental Affairs	
Management Act,	983 of Dec 2014 (included within		
1998 (Act No 107 of	NEMA 107 of 1998)		
1998)			
Environmental Impact	Guidelines with regards to the	Department of	1998
Assessment	Environmental Impact	Environmental Affairs	
Regulations (Notice	Assessment Process to be		
No. R983 of 2014)	undertaken		
Constitution of	The project falls within the	Department of	1998
Republic of South	boundaries of South Africa	Environmental Affairs	
Africa (Act No 108 of			
1996)			
National Heritage	Any possible artefacts which	SAHRA	1999
Resources Act (Act	could be of cultural or historical		
No 25 of 1999)	significance must be identified		
National	Damaging of, disturbance to or	Department of	2004
Environmental	destroying of plant or animal	Environmental Affairs	
Biodiversity Act 10 of	species during the clearing of the		
2004	site		
Integrated	Public Participation Process	Department of	2010
Environmental		Environmental Affairs	
Management			
Guideline, Public			
Participation			

7. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

If YES, what estimated quantity will be produced per month?



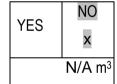
How will the construction solid waste be disposed of (describe)?

All solid waste will be disposed at the registered local landfill site. This will be addressed in the EMPr. The ECO will audit the EMPr and submission will be made to the CA for review.

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

The construction solid waste will be disposed of at the registered landfill site by the contractor. This will be addressed in the EMPr. The ECO will audit the EMPr and submission will be made to the CA.

Will the activity produce solid waste during its operational phase?



If YES, what estimated quantity will be produced per month?

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

N/A

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

N/A

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

N/A

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 NEM:WA?	YES	NO X
If YES, inform the competent authority and request a change to an application for scoapplication for a waste permit in terms of the NEM:WA must also be submitted with this		
Is the activity that is being applied for a solid waste handling or treatment facility?	YES	NO X
If YES, then the applicant should consult with the competent authority to determ necessary to change to an application for scoping and EIA. An application for a waste the NEM:WA must also be submitted with this application. b) Liquid effluent		
Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	NO X
If YES, what estimated quantity will be produced per month?		N/A m ³
Will the activity produce any effluent that will be treated and/or disposed of on site?	YES	NO X
If YES, the applicant should consult with the competent authority to determine wheth to change to an application for scoping and EIA.	er it is ne	ecessary
Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	NO X
If YES, provide the particulars of the facility:		
Facility name:		
Contact person:		
Postal address:		

BASIC	ASSESSMENT	RFPORT
	AUGLOUNLINI	

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

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other that exhaust emissions and dust associated with construction phase activities?

If YES, is it controlled by any legislation of any sphere of government?

YES	NO X
YES	NO

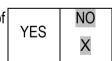
If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

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

N/A

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?



If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?

YES	NO
X	

If YES, is it controlled by any legislation of any sphere of government?

YES	NO
	X

Describe the noise in terms of type and level:

Noise will only be generated during the construction phase (machinery, generator etc.) The level of the noise is however low as there are no residents nearby. No noise will be generated during the operational phase; therefore the impact is temporary in nature.

8. 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,	Other	The activity will	
Muriioipai	vvater board	Oroundwater	dam or lake	Other	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:

Does the activity require a water use authorisation (general authorisation or water YES)

N/A
YES NO

No WULA application needs to be submitted.

use license) from the Department of Water Affairs?

9. ENERGY EFFICIENCY

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

N/A

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

N/A

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

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 B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):



- 1. Paragraphs 1 6 below must be completed for each alternative.
- 2. Has a specialist been consulted to assist with the completion of this section?

YES	NO
X	

Name of Specialist	Neelesh Ramasis
Qualification	Bsc. Environmental Science

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physica I address:

Province	Kwazulu Natal
District Municipality	uMzinyathi Municipality
Local Municipality	Msinga Municipality
Ward Number(s)	Ward 8 (tribal authority)
Farm name and	N/A
number	
Portion number	N/A
SG Code	N/A

Is a change of land-use or a consent use application required?

YES



1. 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
		x				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	2.4 Closed valley	2.7 Undulating plain / low hills	Χ
best describes the site:2.1			
Ridgeline			
2.2 Plateau	2.5 Open valley	2.8 Dune	
2.3 Side slope of hill/mountain	2.6 Plain	2.9 Seafront	
2.10 At sea			

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

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

	Alternat	tive S1:	Alternat	tive S2	Alterna	ative S3
			(if any):		(if any)	:
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO
		X	120	110	120	
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
	120	X	120	110	120	
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
		X	. = 0			
Unstable rocky slopes or steep slopes with loose	YES	NO	YES	NO	YES	NO
soil		X				
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
		X				
Soils with high clay content (clay fraction more	YES	NO	YES	NO	YES	NO
than 40%)		X				
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
	X					
An area sensitive to erosion	YES	NO	YES	NO	YES	NO
	X			_		

As per the site investigation on the 26/03/15 the following features have been identified:

The Msinga Municipality is a local municipality which forms part of the four local municipalities constituting the uMzinyathi District Municipality (IDP, 2012-2017). The Msinga Municipality is located in the town of Tugela Ferry. The site for the proposed development is located in one of the villages in the Msinga municipality on local road L2956.

The site is located in an open valley where the general gradient of the site is 1:15-1:20, which indicates generally a flat terrain. There is no presence of a watercourse in this site, as it is just an upgrade of an existing road to a gravel road.

The geology of the region is underlain by three specific geological units, the Vryheid formation, Volkrust formation and Karoo Dolerite. In these formations consists geological outcrops which can be found around the site. Sandstone is one of the major geological features found in close proximity to the site of the proposed development. There exist very few geotechnical hindrances to development where areas are underlain by this specific type of rock. Shale is another site specific rock type, which is found next to the road of the proposed upgrade. Shale is considered to be generally unstable in terms of construction.

There are no slopes in the site as the gradient and general terrain is extensively flat. There is no need for a slope stability assessment report. The Vryheid Formation which consists of sandstone is considered to be generally stable and good founding conditions occur for structures which occur at nominal depths.

Soils around this region exhibit a red/yellow colour, which is an indication of the presence of iron which is dominated by hematite and aluminum. Some of the soils in this region are severely degraded due to geological influence, overgrazing and improper land use. There are no steep slopes or cliffs near the site of development which means that construction will not be hampered. There exists extensive gully and donga formation in this region. Soil erosion is prominent due to surface run-off and overgrazing.



Photo 1: Showing erosion near site of proposed development.



Photo 2: Showing shale outcrop near existing track.

4. GROUNDCOVER

Indicate the types of groundcover present on the site. 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	lheavy alien	Veld dominated by	Gardens
Sport field	Cultivated land X	Paved surface	Building or other structure	Bare soil X

5. SURFACE WATER

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoonal wetland	YES	NO	UNSURE

6. LAND USE CHARACTER OF SURROUNDING AREA

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial AN	Train station or shunting yard N	Mountain, koppie or ridge
Heavy industrial AN	Railway line N	Museum
Power station	Major road (4 lanes or more) N	Historical building
Office/consulting room	Airport N	Protected Area

Military	or	police	Harbour	Gravovard		
base/station/co	mpound		Harbour	Graveyard		
Spoil heap or s	imes dam ^A		Sport facilities	Archaeological site		
Quarry, sand or	borrow pit		Golf course	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? Specify and explain:

N/A

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

N/A

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

N/A

Does the proposed site (including any alternative sites) fall within any of the following:

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO
		X
Core area of a protected area?	YES	NO
		X
Buffer area of a protected area?	YES	NO
		X
Planned expansion area of an existing protected area?	YES	NO
		X
Existing offset area associated with a previous Environmental Authorisation?	YES	NO
		X
Buffer area of the SKA?	YES	NO
		X

7. 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 paleontological sites, on or close (within 20m) to the site? If YES, explain:

YES	NO X				
Uncertain					

No heritage permit is required. However, should elements of significance be identified during the construction phase, all construction activities will stop immediately and an independent heritage specialist will be appointed to investigate. This is covered in more detail in the EMPr. A draft BAR document was sent to AMAFA for comments and uploaded onto the SAHRIS website. Awaiting comments from AMAFA.

Will any building or structure older than 60 years be affected in any way?

Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?

YES	NO X
YES	NO X

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

According to the IDP (2012 – 2017, p8), the unemployment rate within the Msinga Local Municipality has decreased from 78.7% in 2001 to approximately 55% in 2007. The table below provides an indication of all economically active people within the Msinga Local Municipality (IDP, 2012 – 2017, p25).

Table 2: Employment category (IDP, 2012 – 2017, p25).

EMPLOYMENT CATEGORY	%	
Employed	8.2%	
Unemployed	10.2%	
Not economically active	28.9%	
Not applicable/Institutions	52.6%	
TOTAL	100	

Economic profile of local municipality:

According to the IDP (2012 – 2017, p8), there are no major industries within the municipality, therefore, people are largely employed in the social sector or in the informal sector. The Table below provides an indication of the main economic sectors in Msinga (IDP, 2012 – 2017, p27).

Table 3: Main economic sectors (IDP, 2012 – 2017, p27).

SECTOR	TOTAL	%	
Agriculture	3055.8	3.7	
Mining	953.0	1.2	
Manufacturing	1483.5	1.8	
Electricity and Water	0.0	0	
Construction	6919.9	8.4	
Trade	11572.2	14.0	
Transport	4107.6	5.0	
Finance	1140.6	1.4	
Community Services	53326.4	64.6	
TOTAL	82558.8	100	

Level of education:

According to the IDP (2012 - 2017, p21), 25.11% of the adult population have no form of schooling; 22% of the population have primary schooling as their highest qualification; and approximately 7% have a grade 11 and 12. The table below indicates the number of people surveyed. According to the table below, no residents has indicted any form of higher education (IDP, 2012 – 2017, p22).

Table 1: Level of education (IDP, 2012 – 2017, p22).

	UMZINYATHI DM	NQUTHU	ENDUMENI	UMVOTI	MSINGA
Higher Education	200	65	121	13	0
Diploma with Gr12	4206	776	1250	1437	743
Diploma with less than Gr12	a with less 1521		39	649	429
Certificate with Gr12	2414	479	153	717	1064
Certificate with less than Gr12	with less 3007		136	317	1112
Grade 11 and 12	and 12 52529		8960	15202	10784
Grade 10	27136	4162	10131	6473	6369
Primary Schooling	98796	36117	8184	21156	36117
No Schooling 85709		22539	4380	18137	40653

b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure?

Is the activity a public amenity?

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

What is the expected value of the employment opportunities during the development and construction phase?

What percentage of this will accrue to previously disadvantaged individuals?

Э	R N/A				
	YES	NO			
	X	NO			
	YES	NO			
	X	-			
b	То	be			
	determined				
Э	To be dete	rmined			
	100 %				

To be determined

How many permanent new employment opportunities will be created during the To	be
operational phase of the activity?	termined
What is the expected current value of the employment opportunities during the first R 1	N/A
10 years?	
What percentage of this will accrue to previously disadvantaged individuals?	0 %

9. BIODIVERSITY

Various GIS maps have been consulted during the desk studies, and no biodiversity issues were identified. The site is degraded and the presence of alien vegetation and existing footpaths have transformed the site, therefore the proposed activity will contribute to the rehabilitation of the site which has been outlined in the EMPr. A draft BAR has been submitted to KZN Wildlife for comments and forms part of the Public Participation Process. Awaiting comments from KZN wildlife.

a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category			Category	If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	N/A

b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	%	
Near Natural (includes areas with low to moderate level of alien invasive plants)	%	
Degraded (includes areas heavily invaded by alien plants)	%	
Transformed (includes cultivation, dams, urban, plantation, roads, etc)	100 %	The existing road has been utilized as a local road over a number of years, therefore the site has become degraded by footpaths and invaded by alien vegetation.

c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecos	Aquatic Ecosystems										
Ecosystem threat	Critical	Wetlan	d (includ	ling rivers,							
status as per the	Endangered	depressions, channelled and			depressions, channelled and						
National Environmental	Vulnerable	unchann	eled we	tlands, flats,	Estu	uary	Coastline				
Management:	Locat	seeps	pans, ar	nd artificial							
Biodiversity Act (Act	Least Threatened		wetland	ds)							
No. 10 of 2004)	THEALENEU	YES	NO	UNSURE	YES	NO	YES	NO			

d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

Natural vegetation is minimal being invaded by alien vegetation and footpaths. The area has become completely transformed and offers no significant biodiversity or natural pristine ecosystems.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Illanga Newspaper	
Date published	11/06/2015	
Site notice position	Latitude	Longitude
	28° 51′ 50.12″ S	30° 40′ 36.53″ E

Include proof of the placement of the relevant advertisements and notices.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 983.

Two Newspaper articles (English and Zulu) were published in the Ilanga Newspaper on the 11/06/2015. The relevant tribal authorities/ward councillors were made aware of the proposed development. All organs of state that were identified during the process were informed and requested to comment on the BAR **Appendix D**

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 983

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or
		e-mail address)
Mr Mbovu	Tribal Court	072 925 7814

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of r	espons	e from E	EAP			
Responses	have	been	inclu	ded	in	the
Appendix	D	entitle	ed	'Con	nme	ents
Received'						
,	Responses	Responses have Appendix D Received'	Responses have been Appendix D entitle Received'	Appendix D entitled Received'	Responses have been included Appendix D entitled 'Con Received'	Responses have been included in Appendix D entitled 'Comme Received'

4. **COMMENTS AND RESPONSE REPORT**

SEE APPENDIX D FOR COMMENTS AND REPONSES REPORT.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Org	Contact	Tel No	e-mail	Postal address
an of State	person (Title,			
	Name and			
	Surname)			
Department	Mrs. S.	034	Sibongile.mhlungu@kzntra	Private Bag X2002
of Transport	Ndlela	299 860 0	nsport.gov.za	Dundee
				3000
Amafa	Ms Bernadet	033	bernadetp@amafapmb.co.z	P.O.Box 2685
		3946543	<u>a</u>	РМВ
				3201
KZN Wildlife	Mr D	033	dominic.wieners@	P.O.Box 13053
	Wieners	8451999	kznwildlife.com	3202
Department	Mr S. Naidoo	031	naidooso@dwa.gov.za	P.O. Box 1018
of Water &		3362798		Durban
Sanitation				4000
Department	Mr S.	031 336	GovenderS2@dwa.gov.za	88 Field Street
of Water &	Govender	2759		Durban 4001
Sanitation				4001

SECTION D: IMPACT ASSESSMENT

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

N.B All mitigation measures have been outlined in specific detail in the EMPr (Appendix E), therefore this section must be read in conjunction with the EMPr. The proposed upgrade will follow the existing track which will have minimal impact to the environment as no further disturbance is envisaged. For reporting purposes the existing route will be investigated and forms the preferred alternative (Route 1).

1.1. Selection of Route - Local Road

The selection of a local road will have the greatest environmental impact. The proposed gravel road will be constructed along an existing track. The area is degraded with the presence of alien vegetation and highly eroded banks. Therefore the existing road has been selected as the preferred alternative as not to cause further disturbance to the environment. Engineering Designs prepared by DOT has taken the most efficient techniques with minimal impact to the environment into consideration. Generally, roads are constructed along the path of least disturbance, often following existing tracks.

Impact Ratings

The following presents the assessment criteria used to evaluate the impacts resulting from the proposed development.

Impact Assessment Methodology

The impacts that may result from the construction phase and operation phase of the project was assessed according to a number of criteria to arrive at an overall significance rating. The criteria used were as follows:

Spatial Scale

Site (S) Immediate area of impact

Local (L) Area within 20km of the development

Regional (R) Entire Municipality

Duration

Short Term (ST) Less than the duration of the activity

Medium Term (MT) Impact persists until activity ceases

Long Term (LT) Impact persists well beyond the cessation of the activity

Permanent (P) Impact is permanent

Probability

Low **(L)** Unlikely

Medium (M) Possible

High (H) Likely

Intensity

Intensity describes whether an impact is destructive or benign.

SCORE	ELABORATION
LOW	These are impacts which individually or combined pose a deleterious
(L)	or adverse impact and low negative risk to the quality of the receiving
	environment, and may lead to potential health, safety and
	environmental concerns. Aesthetically and/or physical non-compliance
	can be expected for short periods. In this case the impact is short term,
	local in extent, not intense in its effect and may not be likely to occur. A
	low impact has no permanent impact of significance. Mitigation
	measures are feasible and are readily instituted as part of a standing
	design, construction or operating procedure.
MEDIUM	These are impacts which individually or combined pose a moderate
(M)	negative risk to the quality of health of the receiving environment.
	These systems would not generally require immediate action but the
	deficiencies should be rectified to avoid future problems and
	associated cost to rectify once in HIGH risk. Aesthetically and/or
	physically non-compliance can be expected over a medium term. In
	this case the impact is medium term, moderate in extent, mildly intense
	in its effect and probable. Mitigation is possible with additional design
	and construction inputs.
HIGH	These are impacts which individually or combined pose a significantly
(H)	high negative risk to the environment. These impacts pose a high risk
	to the quality of the receiving environment. The design of the site may
	be affected. Mitigation and possible remediation are needed during the
	construction and/or operational phases. The effects of the impact may
	affect the broader environment.

Significance

Impacts can be Low, Medium or High and can be positive (+ve) or negative (-ve).

Impacts/Significance associated with the Construction phase

Impact	Impact type	Activity	Preferred alternative				ive	
	Positive (+ve)		SE	סר	PF	Ξ.	SIC	M P
	Or		SPATIAL SCALE	JRA	₹ОВ	Ħ H	SZ C	OST
	Negative (-ve)		E A	DURATION	PROBABILITY	INTENSITY	SIGNIFICANCE	POST
		DIRECT IMPACTS					111	
				1				
		During construction high levels of dust is emitted into						
		the atmosphere by construction vehicles and sediment						
		is produced as a result of dust that enters the						
Dust Pollution	(-)	environment in rainfall runoff. These impacts are short-	S	МТ	М	L		L
		term and will only result over a 2 month period. No						
		surrounding dwellings will directly be affected. These						
		impacts have been addressed in detail within the EMPr.						

Impact	Impact type	Activity	Prefe	rred a	lteri	nativ	re
	Positive (+ve) Or Negative (-ve)		SPATIAL	DURATION	PROBABILITY	INTENSITY	POST MITIGATED SIGNIFICANCE
Spillages	(-)	Construction vehicles pose major threats w.r.t spillages on-site, this may result in the contamination of soil and water. The presence of fuels on-site may have a negative impact on the groundwater. Cement mixing/spillages on open ground pose a threat to the receiving environment.	s	МТ	M	М	L
Water Quality	(-)	During construction, water quality is compromised. This is mainly due to human activity and by implementing inappropriate techniques such as diverting the flow of the water course. Pollution of the water course is also a major concern during construction, such as washing of equipment and discharging waste into the river.	L	МТ	М	М	L

Impact	Impact type	Activity	Preferred alternative						
	Positive (+ve) Or Negative (-ve)		SCALE	SPATIAL	DURATION	PROBABILITY	INTENSITY	SIGNIFICANCE	POST MITIGATED
Soil erosion	(-)	All topsoil that will be removed during construction will be prone to erosion; therefore all topsoil must be stockpiled using the appropriate erosion control techniques. Soil erosion was evident at various points along the existing route as a result of poor drainage. The proposed gravel road will address these concerns by implementing correct standard designs by DOT. A vegetation rehabilitation plan will be included in the EMPr to address the mitigation measures that must be implemented to reduce soil erosion on site. Extensive gully erosion is evident around the entire area. The road itself may have negative soil erosion impacts during construction but positive impacts thereafter as it may stabilize erosion.	L		MT	M	M		L

Impact	Impact type	Activity	Preferi	Preferred alternative				
	Positive (+ve)		SP	ב :	PN =	Z	SI N	PC
	Or		SPATIAL SCALE	JRA:			JNE JOL	POST
	Negative (-ve)		::	DURATION	PROBABII	<u>ا</u> ا	MITIGATED SIGNIFICANC	
					T	<	NCE	
		Roads can act as barriers or filters to animal						
		movement and lead to habitat fragmentation. Many						
		species will not cross the open space created by a						
		road due to the threat of predation, and roads also						
		cause increased animal mortality from traffic. This						
Habitat Fragmentation		barrier effect can prevent species						
Trabilat Tragmentation	(-)	from migrating and re-colonizing areas where the	L	LT	L	M	L	
		species has gone locally extinct as well as restricting						
		access to seasonally available or widely scattered						
		resources. This will be a low negative impact as a						
		track already exists, and the new proposed gravel						
		road is an upgrade, therefore the route has been						
		disturbed by the existing track and footpaths.						

Impact	Impact type	Activity	Prefer	red a	lterr	nativ	/e	
	Positive (+ve)		SF SC	פר	뭐	Z.	SIC	PC
	Or		SPATIAL SCALE	JR A	(OB	TEN	GN -	POST
	Negative (-ve)		" ₽	DURATION	ABII	INTENSITY	FIC/	POST
				Z	PROBABILITY	Y	SIGNIFICANCE	j
		Construction workers may disturb or create						
		footpaths that are not planned or existing, which						
		may lead to areas becoming prone to erosion and						
Unplanned routes/footpaths.	(-)	spread of alien vegetation. Strict control measures	L	ST	L	L	- 1	L
		must be implemented by the Contractor and ECO.						
		All areas must be clearly demarcated and incidents						
		must be reported immediately to the site agent.						
		Water will be required during the construction phase						
		that may lead to extra demands on the local water						
Water Resource	(-)	resources of the municipality. However, water will be	L	мт	М			
water Nesource	(-)	transported to the site via tanks which will minimize	_	IVI	IVI	L		_
		the impact. No water will be extracted from any						
		watercourse in the construction phase.						

Impact	Impact type		Preferred alternative				/e	
	Positive (+ve) Or Negative (-ve)		SCALE	SPATIAL	DURATION	PROBABILITY	INTENSITY	POST MITIGATED SIGNIFICANCE
Impact on surface and ground water	(-)	Pollution of soil/ groundwater (fuel, oil, cement, other chemicals etc.)	ι	-	MT	М	M	L
Impact of Storm water	(-)	Storm water could lead to erosion without the proper mitigation measures in place, and side drains not properly constructed.	L	-	мт	M	М	L
Sanitation	(-)	Inadequate sanitation could lead to pollution of the water table.	w)	6	MT	М	М	L
Heritage impacts	(+)	No negative impact. As artefacts of historical or cultural value was not found on the route.	o,	6	ST	٦	L	L
Noise disturbance	(-)	Construction machinery and personnel could disturb the peace in the surrounding area.	V)	6	МТ	M	L	L
Waste Disposal	(-)	Waste is generated through construction activities and therefore the possibility of the area being polluted is increased.		-	МТ	M	М	L

Impact	Impact type	Activity		rred	alter	nati	ve	
	Positive (+ve) Or Negative (-ve)		SCALE	DURATION	PROBABILITY	INTENSITY	SIGNIFICANCE	POST
Socio-Economic Impact	(.)	Construction creates temporary employment for community members.	L	Р	н	L	ı	н
No-go option	(-)	Safety - During most rainy seasons, the road is flooded. The local community's safety will therefore be compromised.		-	-	-		-

Impact	Impact type Activity Pr		Preferred alternative				ve
	Positive (+ve) Or Negative (-ve)		SPATIAL SCALE	DURATION	PROBABILITY	INTENSITY	POST MITIGATED SIGNIFICANCE
		INDIRECT IMPACTS					
Spread of Alien Vegetation	(-)	The removal of topsoil and natural vegetation with an increase in human activity may result in the increase of alien vegetation. The vegetation rehabilitation will address this issue in more detail.	s	ST	М	М	L
Waste Disposal	(-)	Waste such as plastic and paper will impact surrounding animals if ingested.	L	МТ	Н	н	L
Socio-Economic Impact	(+)	(+) Improved living standards.		Р	Н	L	Н
No-go option	(-)	Safety - During most rainy seasons, the road is flooded. The local community's safety will therefore be compromised.	-	-	-	-	-

Impact	Impact type	Activity	Prefer	red a	lterr	nativ	/e	
	Positive (+ve)		SP SC	סר	PR	Z	SIC	PC
	Or		SPATIAL SCALE	I RA	OB,	ΓEN	SI S	POST
	Negative (-ve)		''' ≱	DURATION	PROBABILITY	INTENSITY	SIGNIFICANCE	POST
				_	7	Ì	NCE	J
CUMULATIVE IMPACTS								
Waste Generation	(-)	Extra waste generated during the construction phase could result in added pressure placed on the local landfill site.	L	мт	L	L		L
No-go option	(-)	Safety - During most rainy seasons, the road is flooded. The local community's safety will therefore be compromised.	-	-	-	-		-

Alternative 2

No alternative site or route has been identified. Alternative alignments would require additional disturbance to the environment with very little potential of improvement in terms of environmental performance. This is a linear activity and the proposed gravel road will be upgraded on the existing track to minimise negative impacts to the environment, furthermore DOT has assessed other options and none were cost effective. As a new road will require relocation of dwellings and disturbance to the natural state of the surroundings. Therefore upgrading the existing track is the most feasible option.

Impacts/Significance associated with the Operational Phase

Impact type		Activity	Preferred alternative		e			
	Positive (+ve) Or Negative (-ve)		SPATIAL SCALE	DURATION	PROBABILITY	INTENSITY	POST MITIGATED SIGNIFICANCE	
	DIRECT IMPACTS							
Increased traffic in the area	(-)	The proposed road is an access route off a local road, therefore increased traffic.	L	LT	M	Г	L	
Increased vehicular fumes contributing to Air Pollution	(-)	It is not envisaged that the increased vehicular fumes will contribute significantly to increased localized air pollution but may have a cumulative effect.	L	МТ	L	لــ	L	
Direct alteration of faunal habitat	(-)	The area is highly transformed by the existing track and river crossing.	٦	ե			L	
Increased socio-economic benefits	(+)	The positive impact is that of increased socio- economic development to the local community.	L	LT	Н	L	Н	

Impact	Impact type	Impact type		eferr	ed al	tern	ativ	'e		
	Positive (+ve)		SC	SE SE	סנ	PF	Z	<u>S</u>	≦]	P
	Or		SCALE	SPATIAL	JRA	80§	TEN	GN.	TIG	TSO
	Negative (-ve)		Ш	AL	DURATION	PROBABILITY	INTENSITY	SIGNIFICANCE	MITIGATED	
	INDIRECT IMPACTS									
		The proposed road is merely an upgrade of the								
Safety Issues for the community	(+)	existing track; therefore safety issues do not pose a	9,	S	MT	L	L		L	
		major threat.								
		The road services the local community therefore noise								
Increased noise	(-)	levels should not be affected greatly by the upgrade.	9,	S	MT	M	L		L	

6. ENVIRONMENTAL IMPACT STATEMENT

Alternative A (preferred alternative)

It is the opinion of the EAP that all potential impacts that could potentially occur during the construction and operational phase of the road construction have been identified and key impacts and their mitigation measures are provided in this report.

The following factors were taken into consideration:

A) Site and route

- The route and site location has been selected based on the fact that an
 existing track is currently used as an access road, however this is not
 suitable. DOT therefore proposes to upgrade the existing track to a gravel
 road which conforms to DOT standards.
- The existing route is disturbed and footpaths have been created along the track.
- Should a new road be constructed this will impact negatively on the receiving environment.

B) Land

- No land needs to be expropriated and the community has expressed the need for the track to be upgraded to a gravel road.
- No land will be lost that is currently utilized by the community.

C) Design of the gravel road

- The proposed design of the gravel road has taken DOT standards into consideration. This will improve the overall drainage of the road and minimize surface run-off and erosion along the road verges.
- The route is relatively gentle in gradient and no major modifications are envisaged along the route.

D) Funding

 DOT has made funding available for this financial year 2015/16, the upgrade falls within the ambient of road infrastructure projects for the local municipality.

It is the opinion of the EAP that the proposed local road should be constructed.

The construction would result in minor environmental impact whilst promoting development in the area. The construction of this road from an environmental perspective will result in an improved situation with minimal erosion and damage caused by storm water run-off.

Alternative B

N/A

Alternative C

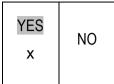
N/A

No-go alternative (compulsory)

Should the proposed construction of the road not go ahead, the site would be exposed to on-going erosion as well as major safety concerns for crossing the existing track during high rainfall periods The road provides the local community access to a number of amenities, therefore the "No-Go" alternative was used as a baseline for impact studies. The proposed construction has positive impacts with minimal environmental impacts.

SECTION E. RECOMMENDATION 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)?



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.

- The EMPR must be strictly adhered to and implemented during the construction and operational phases.
- An ECO should be appointed by the applicant to undertake Environmental Audits and submit reports to the Competent Authority when requested.
- All mitigation measures and factors outlined in the BAR must be considered.
- Should cultural artefacts or heritage sites occur in close proximity to the site, construction must cease immediately and the applicant must appoint a heritage specialist to submit a report to AMAFA.

Is an EMPr attached?		ES X	NO
SHELDON SINGH	DATE		
SIGNATURE OF FAP			

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APPENDIX A.1 LOCALITY MAP

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APPENDIX A.2 AERIAL PHOTO

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APPENDIX A.3 TOPOGRAPHICAL MAP

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APPENDIX B SITE PHOTOS

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APPENDIX C PLAN OF THE ROAD

APPENDIX D PUBLIC PARTICIPATION

- D.1 COMMENTS/RESPONSES FROM I&APS
- D.2 PROOF OF RECIEPTS
- D.3 COPY OF NEWSPAPER AD
- D.4 COMMENTS FROM AMAFA
- D.5 COMMENTS FROM KZN WILDLIFE
- D.6 COMMENTS FROM WATER & SANITATION

BAS	IC ASSESSMENT I	REPORT	
D.1 – COMME	NTS/RESPO	NSES FRO	M I&APS

	BASIC AS	SESSMENT	REPORT		
D	.2 – PRO	OF OF I	RECIEF	PTS	

BASIC ASSESSMENT REPO	DRT
 D.3 – COPY OF NEWS	PAPER AD

BASIC ASSESSMENT REPORT	
D.4 - COMMENTS FROM AMAFA	

	BASIC ASSE	SSMENT RE	PORT			
D.5 - COMMENTS FROM KZN WILDLIFE						

BASIC	ASSESSMENT REPORT	
D.6 - COMMENTS	S FROM WATER &	SANITATIO

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APPENDIX E ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPR)