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**BACKGROUND INFORMATION DOCUMENT FOR  
ENVIRONMENTAL IMPACT ASSESSMENT (EIA), WATER USE LICENSE APPLICATION  
AND BORROW PIT APPLICATION FOR THE  
PROPOSED UPGRADE OF ROAD D1252 IN THE MQEDANDABA VILLAGE IN WARD 4, LOSKOP AREA  
WITHIN THE INKOSI LANGALIBALELE LOCAL MUNICIPALITY, UTHUKELA DISTRICT MUNICIPALITY,  
KWAZULU NATAL**



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## 1. INTRODUCTION

### 1.1 Activity Background

Afzelia Environmental Consultants (Pty) Ltd has been appointed by Ibhongo Consulting cc on behalf of the KwaZulu Natal Department of Transport to conduct an Environmental Impact Assessment (EIA) in the form a Basic Assessment (BA) and Water Use Authorisation (WUA). The proposed project involves the upgrade of Road D1252 from a gravel surface road into blacktopping.

### 1.2 Purpose of the Background Information Document (BID)

The purpose of the BID is to:

- i. Inform the stakeholders, Organs of State, public as well as Interested and Affected Parties (I&APs) about the proposed project, and obtain their comments and inputs;
- ii. Share information about the proposed project and environmental assessment process which will be of relevance to potentially affected parties; and
- iii. Give I&APs an opportunity to register and comment.

The information provided is in terms of:

- i. The National Environmental Management Act, 1998 (Act No 107 of 1998), as amended, the Environmental Impact Assessment Regulations (2014) as published in Government Notice No. 38282 of 2014, considering Government Notice No. R. 982, 983 and 985; and
- ii. The National Water Act, 1998 (Act No 36 of 1998).

### 1.3 Regional Setting and Location of Activity

The proposed Road D1252 is situated in the Mqedandaba Village in Ward 4 within the Inkosi Langalibalele Local Municipality (former Imbambaza Local Municipality) under Uthukela District Municipality. The site is approximately 14 kilometres south-east of Winterton and falls under Mazibuko Traditional authority. Refer to **Figure 1** for the Locality Map.

The geographical co-ordinates of the proposed road upgrade project site are indicated in **Table 1** below:

**Table 1: Coordinates of proposed Road D1252**

<b>Start</b>	South	28°	56'	17,9"
	East	29°	34'	58,5"
<b>Middle</b>	South	28	56	03,2
	East	29	35	55,0
<b>End</b>	South	28°	56'	06,9"
	East	29°	36'	41,2"

Access to the site is via the Road P10/1 situated at the Start and End point of Road D1252.

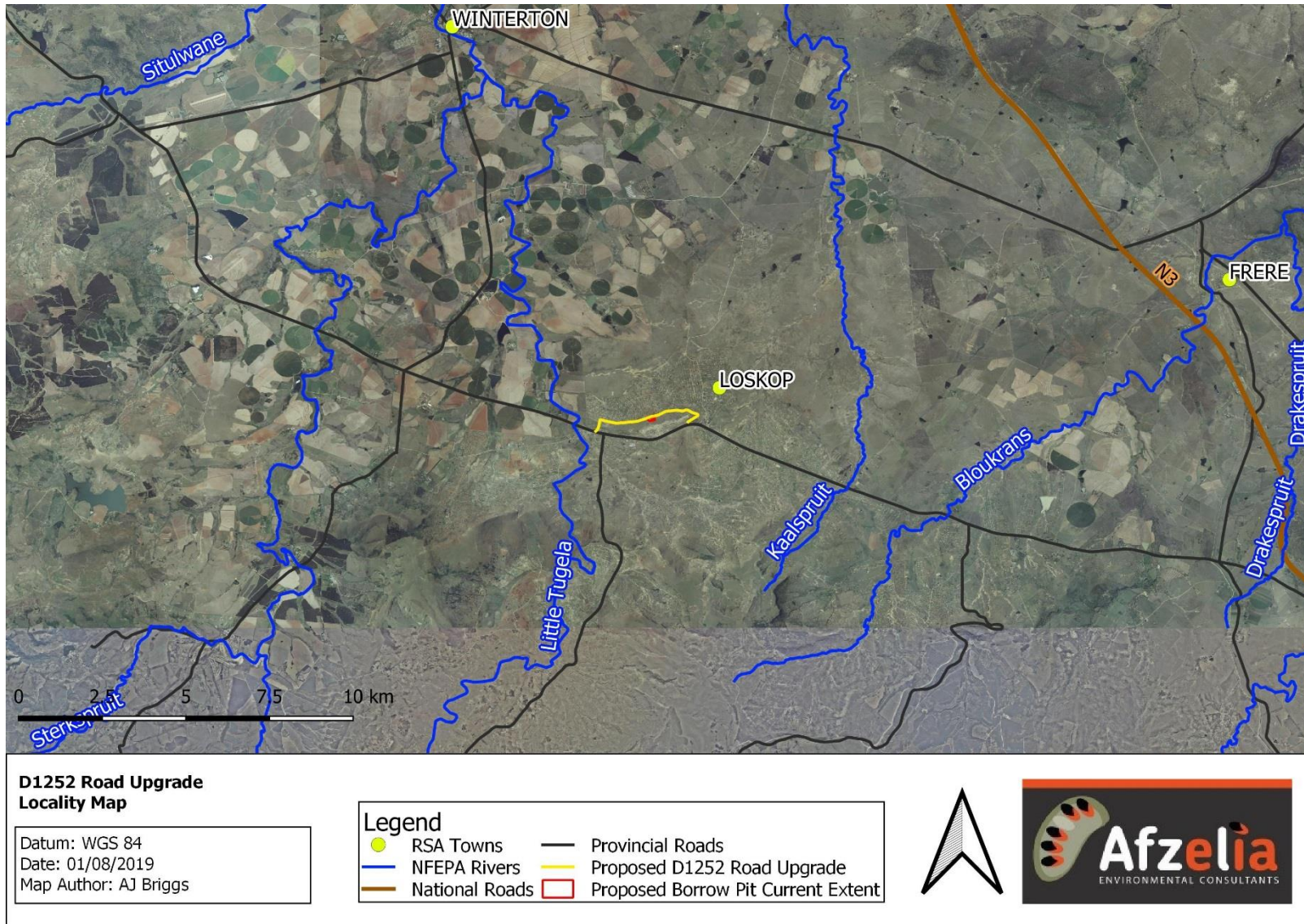


Figure 1: Locality map

## 2. CONCEPTUALISATION OF ACTIVITY

### 2.1 Project Description

The proposed project forms part of the Department's Road for Rural Development Programme and comprises of road widening, the construction of earthworks, layer works and blacktop surfacing, storm water drainage and the construction of a 3 celled box culvert structure.

The existing Road D1252 is approximately 6.5m wide and 3.9 km long with a road reserve of 30m and the project entails the upgrading and widening from 6,5m to 8.5m wide surfaced Type 4 Low Standard Secondary Road with a carriageway width consisting of 2x3.5m lanes and a 1.5m concrete paved footway on cut/fill. The proposed upgrade will start from the T-junction with Road P10/1 at Km 0,0 at approximately GPS coordinates: 28° 56' 17,9" S, 29° 34' 58,5" E to the T-junction with Road P10/1 at Km 3,9 at approximately at GPS coordinates: 28° 56' 06,9" S, 29° 36' 41,2" E.

There are existing pipe culverts at Km 0.124 where the road alignment transverses an unnamed tributary of the Little Tugela River. These pipes will be decommissioned to construct a 3 celled (1.8m x 1.8m) *cast insitu* box culverts over the stream with a span of 17.85m within the stream bed at GPS coordinates: 28° 56' 15,0" S, 29° 35' 01,1" E. According to the drawing plan No. STC3983/1, the total structure of the causeway will have approximately a physical footprint of 116,02 m<sup>2</sup>. And approximately 210 cubic metres of soil, and other material will be excavated, removed, or moved during construction of the causeway from GPS coordinates: 28°56'15.32"S, 29°35'01.15"E to 28°56'15.07"S, 29°35'00.75"E.

The following cross drainage is provided as shown in Table below

**Table 2: Summary of cross drainages**

Chainages	Number and Size	Inlet		Outlet	
		Latitude	Longitude	Latitude	Longitude
0+120	3(1.8m x 1.8m) cast insitu culvert	28°56'15.32"S	29°35'01.15"E	28°56'15.07"S	29°35'00.75"E
		28°56'15.15"S	29°35'01.28"E	28°56'14.88"S	29°35'00.87"E
0+440	1 x 600mm Pipe	28°56'05.15"S	29°35'04.19"E	28°56'06.81"S	29°35'03.99"E
0+642	1 x 600mm Pipe	28°56'06.44"S	29°35'11.54"E	28°56'06.75"S	29°35'10.76"E
0+852	1 x 600mm Pipe	28°56'08.05"S	29°35'18.84"E	28°56'08.54"S	29°35'18.76"E
1+160	1 x 600mm Pipe	28°56'07.74"S	29°35'30.07"E	28°56'08.24"S	29°35'30.13"E
1+311	1 x 600mm Pipe	28°56'07.26"S	29°35'35.61"E	28°56'07.83"S	29°35'35.69"E
1+533	1 x 600mm Pipe	28°56'06.49"S	29°35'43.76"E	28°56'06.98"S	29°35'43.87"E
1+807	1 x 600mm Pipe	28°56'03.68"S	29°35'53.27"E	28°56'04.12"S	29°35'53.55"E
1+930	1 x 600mm Pipe	28°56'01.94"S	29°35'57.71"E	28°56'02.50"S	29°35'57.62"E
2+584	1 x 600mm Pipe	28°55'55.03"S	29°36'20.07"E	28°55'55.46"S	29°36'20.03"E
2+665	1 x 600mm Pipe	28°55'54.82"S	29°36'23.00"E	28°55'55.23"S	29°36'23.13"E
2+796	1 x 600mm Pipe	28°55'54.17"S	29°36'27.75"E	28°55'54.65"S	29°36'28.01"E
3+020	1 x 600mm Pipe	28°55'54.79"S	29°36'35.83"E	28°55'55.19"S	29°36'36.11"E
3+266	1 x 900mm Pipe	28°55'56.06"S	29°36'44.12"E	28°55'56.47"S	29°36'43.78"E
3+505	1 x 600mm Pipe	28°55'59.51"S	29°36'51.89"E	28°55'59.49"S	29°36'51.39"E
3+600	1 x 600mm Pipe	28°56'01.81"S	29°36'49.69"E	28°55'01.47"S	29°36'49.31"E
3+776	1 x 900mm Pipe	28°56'05.15"S	29°36'44.39"E	28°55'04.68"S	29°36'43.90"E

The construction activities will be as follows:

- Establishment on site;
- Clearing and grubbing;
- Provision of traffic accommodation facilities;
- Access to all properties to be catered for throughout the contract;
- Build access roads;
- Construction of 150 mm using stockpile/borrow G10 quality material and possibly also commercial sources and compacted to 93% of MAASHTO Density;
- Construction of 150 mm using stockpile/borrow G7 quality material and possibly also commercial sources and compacted to 93% of MAASHTO Density;
- Importation of layer work materials (gravel subbase and base) from commercial sources;
- Construction of 125 mm sub-base using imported G6 quality material from commercial sources, stabilized with cement to obtain C4 and compacted to 95% of Mod AASHTO density;
- Construction of 125 mm base using imported G2 quality material from commercial sources and compacted 95% of bulk relative density;
- Double seal surface for the road using 19,0 and 9,5 mm aggregate with 50/70 hot applied binder;
- Installation of subsoil drains in cuttings;
- Excavation widening as and where required; installation of kerbs and channels;
- The implementation of slope stabilization and rockfall mitigation measures if required;
- Road marking of the newly constructed road surfaces; Finishing off the road and road reserve;
- De-establishment of site camp after all construction activities are complete; Repairing the road when failures occur for the 12 months defects liability period.

In addition to the Basic Assessment process, a Water Use Authorisation Application (WUAA) will be submitted in accordance to the requirements of the National Water Act of 1998 (Act No. 36 of 1998) regulated by the Department of Water and Sanitation (DWS) for the upgrade of the road, construction of causeway and abstraction of water from the watercourse during the construction activities.

There is an existing borrow pit which is located at chainage 1.900 at approximately GPS coordinates 28° 56' 02,8" S, 29° 35' 57,5" E which will be utilised along the road section for the purpose of procurement of raw materials. The borrow pit site is currently being mined and comprises terraces and excavated aspects. Stockpiles of crushed material was also noted on the site. However, prior to use of this site; copies of permits from the Department of Mineral Resources and Department of Water and Sanitation must be lodged with the KZN DOT. Only materials supplied by permitted sources must be used and compliance with the Minerals and Petroleum Resources Development Act, (Act No.28 of 2002) as applicable to the establishment of borrow pits must be ensured.

## **2.2 Motivation**

The proposed project forms part of the Department's Road for Rural Development Programme and does have a high importance at a local level; as it is located in a rural area that is densely populated with homesteads on either side of the proposed road upgrade within the Mqedandaba Village which falls under Ward 4 within Inkosi Langalibalele Local Municipality. This route serves a growing number of households, linking Asagai to Loskop station and providing access to P10/1 to Escort, Mooi River and Bergville and empowering the community of Mqedandaba and Enkomokazini under Ladysmith Region and giving them opportunity to major markets, work opportunities.

The various community services facilities along the route are Enkomokazi Technical High, Gourton Bridge Primary School, Phasiwe Primary School. The proposed project will eliminate route closures caused by the periodic flooding during the rainy season at Km 0.124 crossing where the road alignment transverses an unnamed tributary of the Little Tugela River and eliminate the risk of casualties. The proposed road upgrade project will reduce inconvenience and delays and improve mobility and accessibility in the local community. Temporary employment opportunities for local community members will be generated during the construction phase and they will benefit from the training of unskilled labour.

This road upgrade project will enhance service delivery capacity thereby impacting positively on the local community. In addition, there is a need to balance the convenience by providing bus stops at shorter intervals to reduce walking distances and increase safety by minimising the instances of vehicles pulling off the road at bus

bus-stops at locations where population density is unusually high, at all schools and preferably at distances not closer than 1Km apart.

### 3. APPLICABLE LEGISLATION

#### 3.1 National Environmental Management Act requirements

The proposed road upgrade triggers Listed Activities as stipulated in the EIA Regulations (2014) promulgated in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA) as amended under Government Notice No. 982, 983, 984 and 985 of 04 December 2014 read in conjunction with Regulations (GNR) 324, 326 and 327 of 07 April 2017. The following table provides a summary of the Listed Activities in terms of the EIA Regulations 2014 that are triggered by the proposed project:

**Table 3: Summary of Listed Activities**

Government Notice Number	Activity Number	Description of each Listed activity
GNR 327 of 07 April 2017 (Listing Notice 1) read in conjunction with GNR 983 of 04 December 2014)	12	The development of— (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs— (a) within a watercourse
GNR 327 of 07 April 2017 (Listing Notice 1) read in conjunction with GNR 983 of 04 December 2014)	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, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse;
GNR 327 of 07 April 2017 (Listing Notice 1) read in conjunction with GNR 983 of 04 December 2014)	21	Any activity including the operation of that activity which requires a mining permit of section 27 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002, including -  (a) associated infrastructure, structures and earthworks, directly related to the extractions of a mineral resource,
GNR 327 of 07 April 2017 (Listing Notice 1) read in conjunction with GNR 983 of 04 December 2014)	24	The development of a road—  (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;
GNR 327 of 07 April 2017 (Listing Notice 1) read in conjunction with	31	The decommissioning of existing facilities, structures or infrastructure for—  (iv) any phased activity or activities for development and related operation activity or expansion or related operation activities listed in this Notice or Listing Notice 3 of 2014;

Government Notice Number	Activity Number	Description of each Listed activity
GNR 983 of 04 December 2014		

The abovementioned activities contained in Listing Notice 1 of the Regulations promulgated in terms of the National Environmental Management Act, 1998 (Act 107 of 1998) (GN R. 982 and 983, of 04 December 2014); are subject to a Basic Assessment.

### 3.2 National Water Act requirements

Due to the proposed project occurring within 500m radius of a wetland, a Water Use Authorisation Application (WUAA) must be submitted to the Department of Water and Sanitation (DWS) in terms of the National Water Act 1998 (Act No. 36 of 1998). The proposed road upgrade triggers Section 21 (a), (c) and (i) water uses of the National Water Act (Act No 36 of 1998) which requires a Water Use Authorisation. The following table provides a summary of water uses that require a Water Use Authorisation in terms of the National Water Act.

**Table 4: Summary of water uses**

Activity Number	Water Use	Explanation / Definitions
Section 21 (a) of NWA, 1998	Taking water from a water resource	❖ Water is to be extracted per day from the Little Tugela River
Section 21 (c) of NWA, 1998	Impeding or diverting the flow of water in a watercourse.	❖ Impeding flow means the temporary or permanent obstruction or hindrance to the flow of water into watercourse by structures built either fully or partially in or across a watercourse. ❖ Diverting flow means a temporary or permanent structure causing the flow of water to be rerouted in a watercourse for any purpose.
Section 21 (i) of NWA, 1998	Altering the bed and banks of a watercourse or characteristics of a watercourse.	❖ Altering the bed and banks means any change affecting the resource quality of the watercourse (the area within the riparian habitat or 1:100 year floodline, whichever is the greatest).

## 4. ENVIRONMENTAL SPECIALIST STUDIES UNDERTAKEN

In order to quantify how and where a project may impact on the environment, specialist studies are required to inform the Basic Assessment process as well as the WUAA to provide supporting specialist data. The following specialist studies have been identified so far and have been conducted to inform the BAR and WUAA process:

- Wetland Delineation and Functionality Assessment and Rehabilitation Plan;
- Aquatic Impact Assessment;
- Vegetation Impact Assessment;
- Level 1 Heritage Impact Assessment; and
- Desktop Paleontological Impact Assessment.

### 4.1 Biophysical Context

The following table summarizes the biophysical attributes of the study area.



Table 5: Biophysical Attributes

Biophysical Attributes			
General description	Site	Proposed Road D1252 Upgrade	
	GPS coordinates	<b>Road Upgrade Start:</b> 28° 56' 17,9" S 29° 34' 58,5" E <b>Road Upgrade End:</b> 28° 56' 06,9" S 29° 36' 41,2" E	
	Climate (Schulze, 1997; DWAF, 2005b)	<b>V13C:</b> The mean annual precipitation is ~818.8 mm; potential evapotranspiration is ~1834.6 mm with a simulated mean annual run-off of ~121.2 mm.	
		<b>Western Extent of Road Upgrade - DWAF Ecoregion 14.07 (North-Eastern Uplands):</b> Rain falls primarily in mid-summer with highly infrequent winter rainfall. Maximum temperatures vary between 19-31°C in February and 13-22°C in July whilst minimum temperatures are between 10-15°C in February and 0-5°C in July.	<b>Eastern Extent of Road Upgrade - DWAF Ecoregion 14.02 (North-Eastern Uplands):</b> Rain falls primarily in mid-summer with highly infrequent winter rainfall. Maximum temperatures vary between 24-28°C in February and 18-22°C in July whilst minimum temperatures are between 12-16°C in February and 2-6°C in July.
	MAP:PET (Schulze, 1997)	0.45	
	Simulated annual run-off (Schulze, 1997)	121.2 mm	
	Geology (Department of Agriculture Land Types Database)	The study site is underlain by mudrock of the Adelaide Subgroup	
	Quaternary catchment	V13C	
	Receiving river systems	Little Tugela River	
	National Classification and status	Vegetation Type and Conservation Status (Mucina & Rutherford, 2006; SANBI, 2018)	KwaZulu-Natal Highland Thornveld (Gs6): Least Threatened (LT)
FEPA features		Yes, River FEPA	
FEPA Unit ID		ID: 3495	
Provincial vegetation classification and status	Vegetation Type and Conservation Status (Scott-Shaw & Escott, 2011)	KwaZulu-Natal Highland Thornveld (Gs6): Least Threatened (LT)	
	Ezemvelo KZN Wildlife Aquatic Conservation Plan (EKZNV, 2007)	Available (ID 2407)	

#### 4.2 Aquatic Ecological Assessment findings

The road upgrade falls within quaternary catchment V13C which forms part of the greater Pongola - Mtamvuna Water Management Area (WMA). The road alignment is located within the sub-quaternary reach (SQR) V13C – 03495.SQR V13C – 03494 comprises an upland section of the Little Tugela River which terminates at the confluence of the Little Tugela and the Thukela River, approximately 40km downstream of the site.

The SQR is considered to be in a moderately modified or Class C state, whilst the ecological integrity (EI) and ecological sensitivity (ES) are rated as high and very high, respectively (DWS, 2014). Primary impacts to the SQR include a gauging weir, upstream rural areas, dryland agriculture within the floodplain, roads as well as extensive irrigation in the lower reaches.

One riverine unit and one wetland unit were delineated and assessed in the field using topographical, soil and vegetation indicators. The wetland and riverine units located within adjacent sub-catchments in the greater study area were delineated at a desktop level and will not be assessed.

The riverine unit onsite comprises an unnamed tributary of the Little Tugela River and is classified as transitional river due to the moderately steep gradient, largely bedrock channel and dominance of pool-riffle biotopes within a semi-confined valley floor (Ollis et al. 2013).

This transitional river is weakly perennial in terms of flow regime and is bedrock controlled with a moderately steep longitudinal profile. The riverbed is dominated by bedrock substrate whilst was prevalent mud in the pools. The active channel varies between 2 – 8m wide and up to 1.5m deep in areas, although the unit is largely shallow, and occurs within a 10m wide macro channel. The river is located within wetland habitat with no true riparian zone present. In terms of biotopes onsite, the reach is dominated by alternating riffles and pool habitat.

Instream vegetation was limited to algae whilst the marginal vegetation comprised a mix of *Sporobolus africanus*, *Andropogon eucomis* and an additional unidentified stoloniferous grass species.

The primary impacts to the watercourse units include:

- Solid waste dumping within the wetland area and instream zones.
- Significant bank and gully erosion linked with overgrazing.
- Minor flow and channel modification caused by a low-level bridge.
- Water pollution likely caused by informal housing related issues.

The Ecstatus of a river is defined as all features and characteristics of a river and associated riparian areas that relate to the ability of a system to support reference flora and fauna as well as the capacity of a system to provide important ecosystem goods and services (Kleynhans and Louw, 2007). The EcoStatus result integrates scores for both the drivers (hydrology, geomorphology and physico-chemical) and responses (fish, aquatic macroinvertebrates and riparian vegetation) of overall riverine health (Kleynhans and Louw, 2007).

The results of the collective PES assessment of the assessed riverine unit is shown in Table 4.9., below.

**Table 6: Overall EcoStatus of unit R01**

Ecological Categories Assessed	Ecological Category Score
Instream Ecological Category	C
Riparian Ecological Category	N/A
Aquatic Macroinvertebrate Ecological Category	D
Fish Ecological Category	F
<b>EcoStatus</b>	<b>D/E</b>

Habitat quality of the site due to low biotope and instream habitat diversity as well as poor water quality.”

### 4.3 Wetland Assessment Findings

The table below provide a description of the wetland habitat and the wetland map is shown in **Figure 2** below.

**Table 7: Description of wetland habitat**

Aspect	Description
HGM Type / Size	Wetland system comprising two HGM types (seep and a channelled valley bottom wetland)
General Description	Wetland Unit W01 is a wetland system that occurs on the valley floor and adjoining valley side slopes. Both the valley floor and adjoining valley side slopes have been severely eroded over time resulting in the development of a huge gully measuring up to 200m wide and 4m deep. The vertical progression of the gully was noted to be halted by exposed bedrock. Due to this erosion, the natural boundary between the seep and valley bottom wetland habitat was no longer evident. True wetland habitat is now confined to the macro channel floor and non-eroded valley side slopes.
Hydrology	The wetland habitat confined to the macro channel floor is characterised by seasonally and permanently saturated soils whilst the wetland habitat situated on non-eroded valley side slopes is characterised by temporarily saturated soils.  Dominant water inputs are in the form of interflow from valley side slopes. Water moves through the seep wetland habitat as interflows and through the channelled valley bottom wetland habitat as both diffuse surface and sub-surface flows. Water exists the channelled valley bottom wetland as concentrated surface flows.
Soil	0 – 10 cm was a brown-grey to grey soil matrix with few to many orange mottles. (loamy sand) 40 – 50 cm was a grey soil matrix with many orange mottles. (Clay sand)
Vegetation	The channelled valley bottom wetland habitat was characterised by monotypic stands of reed beds ( <i>Phragmites australis</i> ), bulrush beds ( <i>Typha capensis</i> ) nested within a hygrophilous grassland. The grassland comprised the following wetland species <i>Andropogon eucormis</i> , <i>Juncus effuses</i> , <i>Pycreus sp.</i> , <i>Leersia hexandra</i> and a rhizotomous grass  The seep wetland habitat was characterised by an overgrazed grassland comprising <i>A. eucormis</i> , <i>Cynodon dactylon</i> , <i>Sporobolus africanus</i> and <i>S. pyramidalis</i> . Due to heavy grazing some dominant grasses could not be identified.
Existing Impacts	<ul style="list-style-type: none"> <li>• Solid waste dumping within the wetland area and instream zones.</li> <li>• Significant bank and gully erosion linked with overgrazing.</li> <li>• Minor flow and channel modification caused by a low-level bridge.</li> <li>• Water pollution likely caused by informal housing related issues.</li> </ul>

#### 4.4 Heritage Survey Findings

The length of the upgrade is 3.899 km which triggers sections 41 (1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that may require an HIA. Section 41 (1)(a) refers to: the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length.

Several heritage sites were found during the site inspection including:

- Near the school, at least five graves were found situated 20 m south of the D1252. The graves are made from packed rock and two of the graves have inscribed headstones. The graves are fenced and are situated some distance from the D1252 road and should not be impacted by the proposed road upgrade.
- A fenced circular Shembe temple made from white-painted stones is located 14 m north of and above the borrow pit. If the borrow pit is to be mined northwards, then the temple will most likely be impacted. Although of no heritage significance, it may be of importance to those members of the Shembe religion that worship at the temple.

- Three graves were found on the opposite of the road to the borrow pit underneath trees. The graves are made from packed rock and are situated 35 m north of the D1252 and should not be impacted by the proposed upgrade.
- A dwelling that could be older than 60 years was found about 10 m south of the road. As the road is not going to be widened, it should and must not be impacted by the road upgrade.
- Several graves were found within the fenced boundary of a homestead about 8 m south of road. The graves should not be impacted by the road upgrade. However, diagonally opposite this site four graves were found located on the boundary of the road and homestead. Only a fence separates the road and the graves hence they could be impacted by the upgrade.
- Two graves made from packed rock were found situated 14 m and 30 m south of the D1252 road in an open area. They are situated some distance from the road and should not be impacted by the upgrade.
- The assessment of impacts on heritage resources (graves, protected structures, etc) indicated that with the implementation of recommended mitigation measures the impacts can be reduced from a medium impact to a low impact.
- The proposed upgrade of district road D1252 may proceed as long as the recommendations and mitigation measures made in this report and in the desktop palaeontological assessment are implemented.

#### 4.5 Desktop Palaeontology Findings

According to the geology (Adelaide subgroup) there is a chance that palaeontological material may be found during the upgrade of the D1252 access road. Impact is potentially high but can be mitigated by the implementation of a "Chance Find Protocol". This protocol must be written into the EMP.

The site falls within the Kwa-Zulu Natal Highveld Thornveld according to the national vegetation map (Mucina & Rutherford 2018 (Beta)). It is comprised of primarily degraded grassland with numerous weeds with some scattered *Vachellia sieberiana* trees. Grasses occurring along the roadside include *Aristida congesta*, *Melinis repens*, *Hyparrhenia hirta* and *Cymbopogon sp.* Weeds included the Scotch thistle (*Cirsium vulgare*), Spiny sowthistle (*Sonchus asper*), White-flowered Mexican poppy (*Argemone ochroleuca*) among others.

#### 4.6 Ecological Assessment Findings

The site falls within the Kwa-Zulu Natal Highveld Thornveld according to the national vegetation map (Mucina & Rutherford 2018 (Beta)). It is comprised of primarily degraded grassland with numerous weeds with some scattered *Vachellia sieberiana* trees. Grasses occurring along the roadside include *Aristida congesta*, *Melinis repens*, *Hyparrhenia hirta* and *Cymbopogon sp.* Weeds included the Scotch thistle (*Cirsium vulgare*), Spiny sowthistle (*Sonchus asper*), White-flowered Mexican poppy (*Argemone ochroleuca*) among others. Refer to **Figure 3: Vegetation map** below.

The site does not fall within a Critical Biodiversity Area or Ecological Support Area, nor within a Threatened Ecosystem. In addition, there are no protected areas within close proximity.

The site visit was conducted in the dry season, and it is anticipated that in the wet season, several additional species would be recorded with the likelihood of recording geophytes that may be protected high. Overall sensitivity is low as the site is degraded due to anthropogenic impacts. It is anticipated that any impacts as a result of the road upgrade and associated quarry activities will be low. Control of alien invasive species during and post construction is recommended.

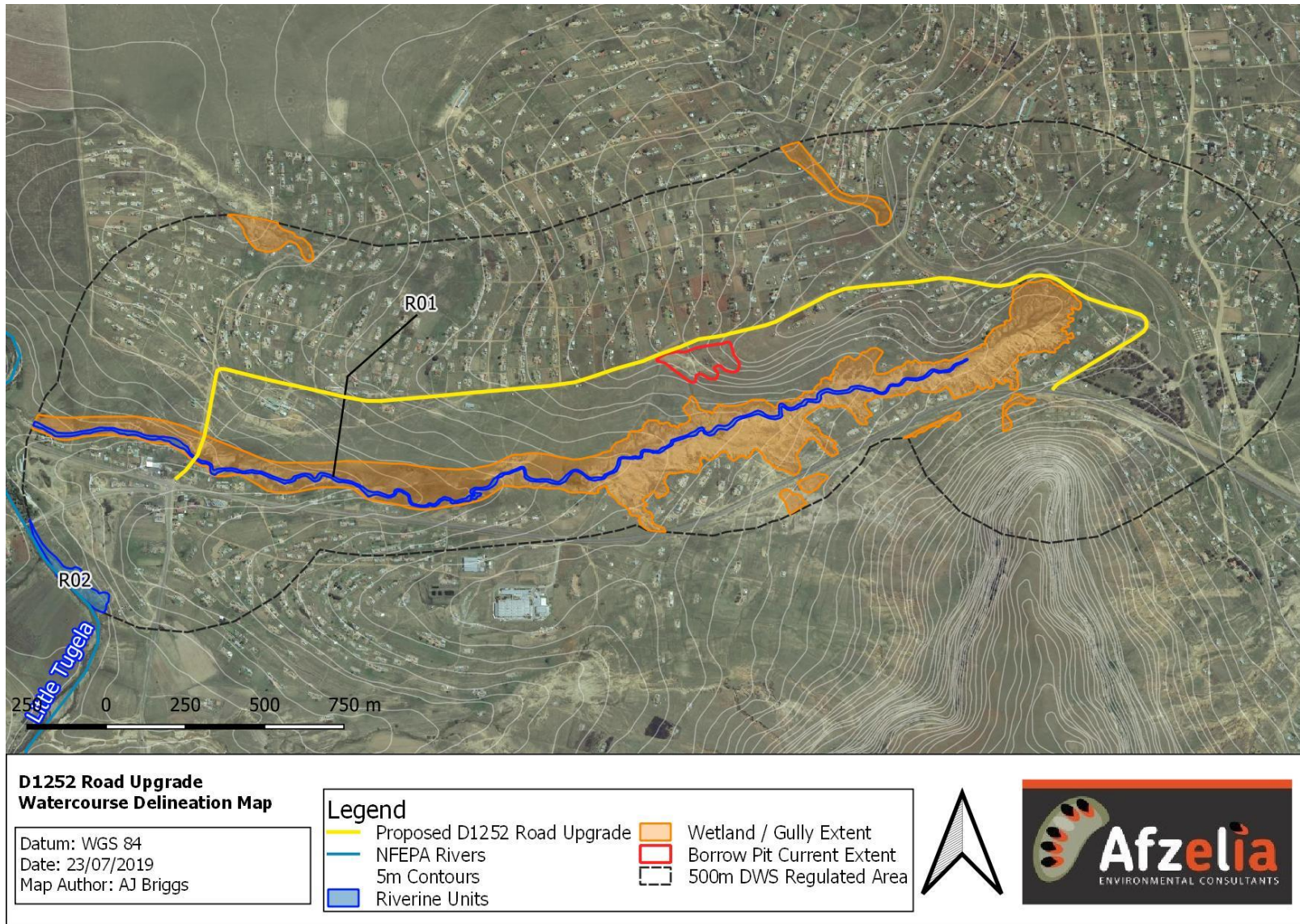


Figure 2: Wetland map

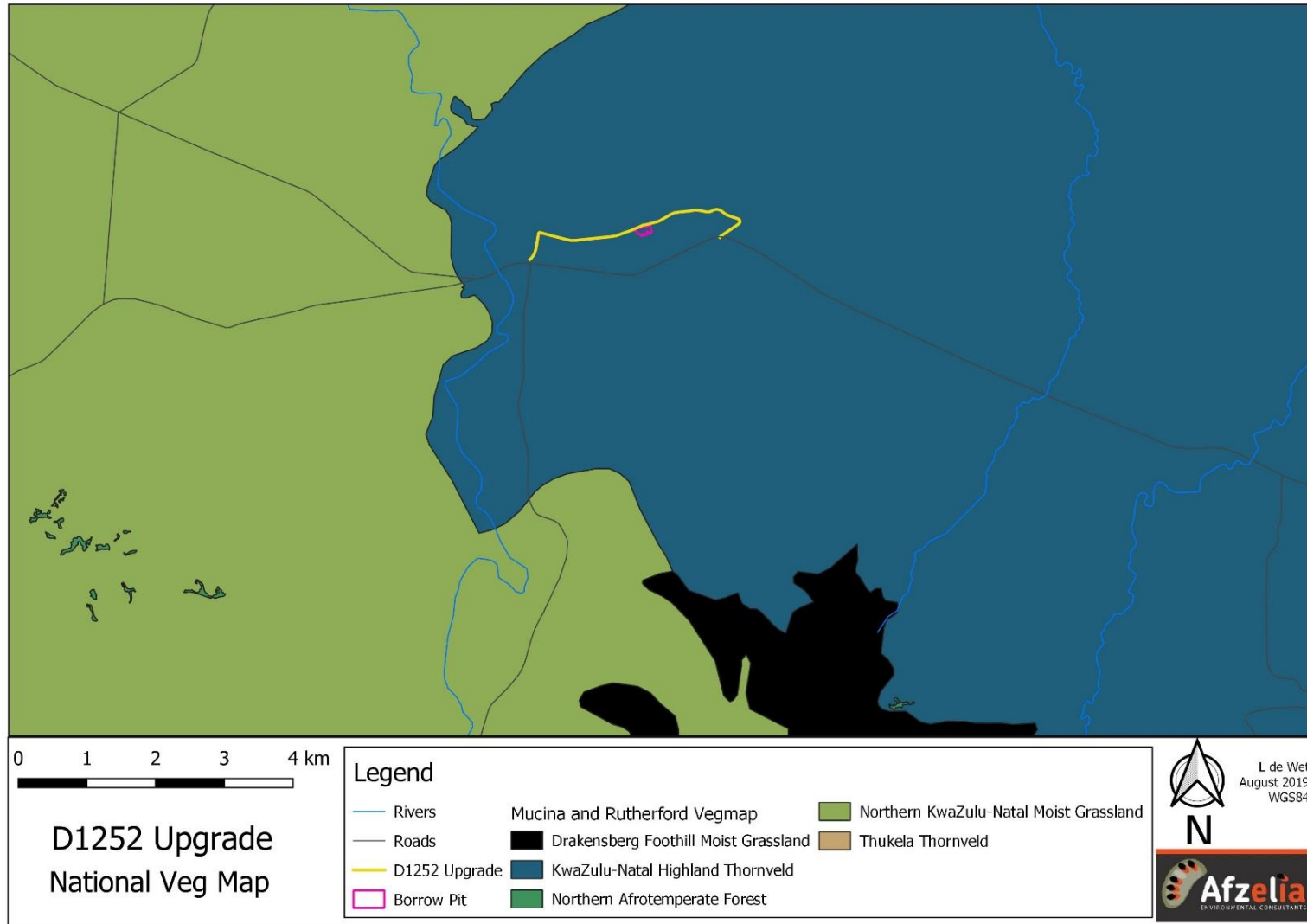


Figure 3: Vegetation map

## 5. PUBLIC PARTICIPATION PROCESS (PPP)

The PPP is a process in which stakeholders and Interested and I&APs are afforded an opportunity to comment on or raise issues relevant to the construction activities and/or the EIA process. Stakeholders and I&APs are invited to:

- Respond (by phone, fax, mail or e-mail) to the invitation to participate in the PPP;
- Complete and forward (mail, fax or e-mail) the attached registration and comment form to Afzelia Environmental Consultants;
- Contact the Environmental Assessment Practitioner (EAP) regarding any query, comment or request for further project information; and
- Review the draft and final BAR within the legislated review periods that will be stipulated in the advertisements as well as in notification letters.

### 5.1 Responsibilities of an I&APs

I&APs have a right to participate in this process by requesting further information or by informing the relevant consultant of concerns regarding the environment in relation to the project. In order to participate in the BAR process, an I&AP **must**:

- Register on the project database in order to receive detailed information regarding the BAR process (See **Appendix 1**);
- Inform any other parties (neighbours, friends, colleagues, etc.) who may be interested and/or affected by the project about the BAR process and encourage involvement and participation;
- Ensure that any comments regarding the project are submitted within the timeframes that have been approved or set by the authorities, or within any extension of a timeframe agreed to by authorities and the applicant; and
- Disclose any direct business, financial, personal or other interest in the approval or refusal of the application for the project.

### 5.2 Responsibilities of EAP Consultant

In terms of the EIA Regulations, the EAP consultant has the following responsibilities:

- Robustly engage the key stakeholders, Competent Authority and I&APs;
- Provide sufficient information regarding the project and associated impacts;
- Ensure that all issues raised are recorded and forwarded to the environmental specialists to address in their impact studies; and
- Facilitate a transparent process.

You have been identified as a potential I&AP in this process and are therefore invited to participate in the project by registering. Your comments will ensure that all relevant issues are considered, documented and will assist in informed decision-making by the relevant authorities.

Should you wish to register as an I&AP and/or receive additional information regarding the project, you are requested to complete the form below and email, fax, post or hand deliver it to Afzelia Environmental Consultants by as per the details provided in the registration and comment form.

**We invite all stakeholders and I&APs to participate freely and to submit any comments or information you feel may be useful.**

**APPENDIX 1: I&AP REGISTRATION FORM**

**PROPOSED UPGRADE OF ROAD D1252 IN THE MQEDANDABA VILLAGE IN WARD 4, LOSKOP AREA  
WITHIN THE INKOSI LANGALIBALELE LOCAL MUNICIPALITY, UTHUKELA DISTRICT MUNICIPALITY,  
KWAZULU NATAL**

Title		Name		Surname	
Company					
Designation					
Address					Postal code
Tel No.			Fax No.		
Email			Cell No.		
I would like to receive my notifications by (mark with X):			Post	Email	Fax
<b>Please indicate why you have interest in the abovementioned project?</b>					
<b>Please write your comments and questions here:</b>					
<i>Please feel free to attach a separate document</i>					
<b>Please add any person you think may be an interested and affected party:</b>					
Full Name			Company		
Address					
Email			Tel/ Cell No.		
<b>PLEASE SEND YOUR REGISTRATION FORM AND COMMENTS TO:</b>					
Company	Afzelia Environmental Consultants (Pty) Ltd		Contact person	Mr Solomon Fataki / Ms Deshni Naicker	
Address	PO Box 37069, Overport, 4067				
Tel No.	031 303 2835		Fax	086 692 2547	
Email	<a href="mailto:solomon@afzelia.co.za">solomon@afzelia.co.za</a> / <a href="mailto:Deshni@afzelia.co.za">Deshni@afzelia.co.za</a>		Website	<a href="http://www.afzelia.co.za">www.afzelia.co.za</a>	