

## EXECUTIVE SUMMARY

Department of Transport (KZN) has been fined by the Department of Economic Development and Environmental Affairs for the unlawful commencement of construction (5) structures that were constructed over the tributary of Thonyelane river, on the road L465 and on the road L466 in the Sandlwana area, Ward 5 Mabhulesini Community.

These activities are as follows:

- a) Crossing (causeway) at coordinates: 28° 51' 29.37"S, and 29° 06' 15.75" E.
- b) Crossing (causeway) at coordinates: 28° 50' 01.71"S, and 29° 06' 19.45" E
- c) Crossing (causeway) at coordinate : 28° 49' 05.52"S, and 29° 04' 51.61" E
- d) Crossing (causeway) at coordinates: 28° 49' 01.96"S, and 29° 04' 21.66" E
- e) Ifidi single lane located at coordinates: 28° 48' 19.38"S, and 29° 2' 55.58" E.

All the above are vehicular crossings. The first four other than Ifidi, are small causeways basically made of culverts. Their sizes varies from width of the drainage crossing. But all of them are below the 100 sqm in size.

The infringement by the Department of Transport was due to non compliance to EIA Regulations of 2010. As such Listing Notice 1, activity 11 and 18 were affected as the department was supposed to have obtained authorisation from the relevant authority (Environmental Affairs – KZN). The other activity that was affected is in terms of the same regulation, but listing notice 2 activity 16 which deals with the construction activities within close proximity to the Natural heritage sites hence all these activities are all within the boundaries of the Natural Heritage Resource Cencter such as Isandlwana Heritage.

During the departments' routine (DEDTEA) inspection by Compliance and Monitoring the officials had identified infringement and as such required representation of the responsible department, which in this case is the Department of Transport (KZN). A communique was then drawn and

submitted to the department responsible for works in these roads, which the department had acknowledge and accepted that they are responsible for the commencement of activities listed in EIA Regulations, 2010 without authorisation by the Environmental Affairs Department.

Prior issueing fine in terms of Section 24 (G) of EIA Regulations 2010 read with National Environmental Management Act, 1998; as indicated above administrative proceese had already in progress to ensure that the responsible department is aware of the infringement and as such acknowledge the proper procedure and need for rectifying or accepting the responsibility of the works already done.

It is, however, need to be noted and understood that out of 5 illegal structure identified by the Department of Environmental Affairs (KZN), 4 of these structures are already completely constructed, which is basically the causeways made of culverts into small drainage line leading into the Mnweni River (along L466) and Thonyelane River (along L465) although some of the diminishes prior reaching into the Mnweni River.

Of these five (5) illegal activities on site, one (1) of them is not complete. This structure is Ifidi Vehicular Bridge which is a single lane. This proposed bridge was still (at the time of illegal activity identification) under the process of Basic Environmental Assessment which was conducted by Isolendalo Environmental Consulting. This unfortunate action happened whilst the Public Participation and Stakeholder involvement processes was complete and support from all stakeholders was obtained (including the consideration of all Interested and Affected Parties). At the time the final BAR was already done and submitted to Uthukela Regional Office of Department of Economic Development and Environmental Affairs for consideration. As a result after the illegal commencement was identified and acknowledge by the department (DoT) the final BAR file was transferred from EIA Section to Compliance and Monitoring Section for investigation.

As indicated above, this all resulted into a fine instituted in terms EIA Regulations, 2010 (now EIA Regulations, 2014).

This report attempts to address the environmental impacts due to activities commenced without environmental investigation and assessment. This report intends to provide report on the status quo of the site by looking at possible impacts pre construction and post constructions by looking at

impacts and mitigation measures needed to ensure that environmental natural aspect of the site is not undermined by the existing structures and including the proposed structure at Ifidi.

## 1. BACKGROUND ANALYSIS

The KZN Department of Transport has commenced and completed 4 structures within road L465 along Thonyelane River and L465, a road pass Isandlwana Cultural Village heading towards Ifidi River. All of these structures are causeways, mostly crossing small perennial drainage. These structures at present are all complete, excluding Ifidi River bridge.

The fifth structure which was also unlawfully commenced is Ifidi vehicular bridge, this bridge was at the time of contravention being assessed under Basic Assessment and as such a final BAR was submitted to DEDTEA after a consultative Public Participation process. However, according to the Department of Economic Development and Environmental Affairs, when they were undertaking their normal routine inspection they have identified amongst other causeways, the diggings and or excavations within the Ifidi river bank. At present there are five excavated areas in preparation of column basis for bridge support. This is itself is in contravention to EIA Regulations, 2010

Upon assessment of the work undertaken, engagements with the role players which included mostly Department of Transport and Department of Economic Development and Environmental Affairs, later on specialists such as Environmental Assessment Practitioners and Engineers were involved.

Upon EDTEA compliance process was complete, a representation was required as to motive of commencement with the activities without authorisation from EDTEA. It then became apparent that DoT had undertaken the activities especially 4 causeways under the pretence of road maintenance and as such were not aware of the legal framework around working in close proximity to the watercourse or drainage. As for unlawful commencement of Ifidi, according to Engineers appointed by DoT, the motive was to identify bedrock, which is part of Geotechnical Investigate and geohydrological process so that they are able to design structures that will be firm to all weather conditions. Unfortunately, this action in terms of EIA Regulations, 2010 is illegal taking into consideration the receiving environment and biodiversity of the site especially the surroundings of

the areas affected.

## 2. PURPOSE

Whilst the main purpose of this document is to evaluate and analyse impacts of the unlawful activities identified to these sites, it is also the purpose of this document to provide some recommendations for the Department of Economic Development, Tourism and Environmental Affairs (EDTEA) to make an informed decision based on the constructed causeways and proposed Ifidi Vehicular Bridge.

The first part of the report is to provide the following: -

- Examination and evaluation of the illegal activity experienced on the sites
- The extent of the illegal activity as it is on sites
- An evaluation of the impacts the site was subjected to
- Mitigation measures to reinstate the affected areas around causeways (this is mostly and specifically addressed in the Environmental Management Programme)
- Rehabilitation plan/method needed in respect of illegal activity the site was subjected to

The second part of this report is to provide the following: -

- The investigation of the proposed development (Ifidi Bridge) on the receiving environment
- The impacts of the proposed Ifidi Vehicular Bridge, which is yet to be fully constructed.
- Mitigation measures to proposed Ifidi Vehicular Bridge
- Environmental Management Programme during construction of Ifidi Vehicular Bridge.

Over and above the stated purposes of this document, it must also be indicated that this document intends to generally offer solutions to the problem already experienced on the site. This will help in guiding the proposed development in terms of offering measures and mitigations that will assist in minimizing the impact that this proposed development might have on the receiving environment.

It is therefore anticipated that the proposed development will not have a negative impact upon the receiving environment, taking into consideration that the areas within which these causeways (in particular) have already been constructed and excavations that recently took place within the Ifidi River in preparation for Ifidi Vehicular Bridge.

### 3. LOCATION OF THE SITE

The areas affected by all crossings, that is 4 causeways and Ifidi Bridge are all within road L465 and L466, which is under the administration of Department of Transport (KZN).

The coordinates of these sites are as follows:

- a) Crossing (causeway) at coordinates: 28° 51' 29.37"S, and 29° 06' 15.75" E.
- b) Crossing (causeway) at coordinates: 28° 50' 01.71"S, and 29° 06' 19.45" E
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- d) Crossing (causeway) at coordinates: 28° 49' 01.96"S, and 29° 04' 21.66" E
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The above can be depicted in the Site Layout Plan developed for this purpose, attached in the document.

### 4. ILLEGAL ACTIVITIES IDENTIFIED ON L466 ROAD

During the year 2012 to 2013 the Department of Transport (KZN) had commenced with the upgrade of 4 existing causeways along L465 and L466 road, Sandlwana area, within ward 5 at Mabhulesini Community. All these causeways are on the existing road which is being used by the community of Mabhulesini to and from town Bergville and nearby Police Station.

As indicated in the above, the excavations and earthwork activities include the following:-

1. The site clearance and earthworks started prior to environmental authorisation by EDTEA.

About 300m<sup>2</sup> was excavated in preparation of the already constructed causeways.

2. The demolishing of the delapidated crossing structures made of circular pipes of 900mm in diameter without the approval of the department.
3. The disturbance and removal of vegetation within the site.
4. The loss of valuable topsoil thereby resulting in the loss of a precarious natural resource.
5. Soil erosion as a result of excavated topsoil thereby exposing both the topsoil and subsoil to erosion. This includes all other forms of erosion such as wind erosion.
6. Destruction of other biodiversity species such as shelter to other forms of habitual life resulting in the loss or destruction of weaver nests.

## 5. SITE DESCRIPTION (BEFORE AND AFTER EXCAVATIONS)

L465 and L466 roads, in which these structures are situated is presently an access road falling under the administration of KZN Department of Transport.

Prior the upgrade of structures there used to be small crossings or low level causeways linking the far away (towards Ifidi) and school across the Ifidi River. Community transport network presently and previously used this road for their everyday domestic activities including service delivery activities for the greater community of Amangwane.

The department in their infrastructural analysis identified problems of degradation of bridges or small crossings, which prompted them to actively upgrade them so that the community does not left stranded or without transport and basic services for both policing, school and general use by community when they undertake their everyday chores.

As indicated above, prior upgrade of there structures, there was always existing structures which was used for crossing theses drainage lines. In close proximity to each of these causeways is basically residential development in the form of rural setup.

Although these structures were placed or upgraded without the approval or authorisation by the department (EDTEA) there are no significant environmental impacts such as the factors of vegetation hence the area around is hardly covered by vegetation. The only environmental impact that can be associated with these four (4) causeways is susceptibility of these sites to soil erosion as they are situated in a slightly steep slope thereby exposing to a greater degree of erosion.

Ifidi River Bridge proposed over this river is not yet constructed but as identified by the department (EDTEA), excavations had already taken place, which left the area and the surrounding susceptible to possible formation of dongas and gullies; and possible accidents as huge digging was done by the department. The main concern of the affected area could be the impact of erosion. However, in terms of biodiversity status of the area there is nothing of biodiversity importance that can be associated with the excavations hence the area in close proximity is basically normal grass with community garden next to the river. Again, the location of the excavated area is not in close proximity to the residences, which could be a factor in accidents. In our assessment with the local people, there are no accidents experienced by the community due to the diggings taken place within this area.

Post excavation factors can, as such, not be identified or anticipated hence there is no biodiversity loss or any soil erosion due to these excavations taken place. However, in terms of legalities, EIA Regulations, 2010 have been uncomplied with thereby creating a scenario where the department (KZN DOT) faced with undergoing environmental risk assessment due to unauthorised activities within the site.

## 6. IMPACTS OF EXCAVATIONS AND EARTHWORKS

The excavations/earthworks that these sites have been exposed to has resulted in various impacts which may be categorized as either good for the community whilst at the same time can be viewed as negative to the receiving natural environment.

Although the amount of affected land was not calculated or established, generally about more 300 square metres of land have been affected by the excavations and construction of all 5 structures.