

The EIA Regulations, 2010 list certain activities that warrants authorization by EDTEA which before consideration by the department a developer has to appoint Environmental Assessment Practitioner to undertake environmental impact assessment study, and motivate by means of submitting reports with recommendations for approval or authorization.

This particular proposed development as described in the above falls within 32m from the edge of the river or watercourse and thus triggers listed activities as according to EIA Regulations 2010. As indicated above, the other applicable regulation specifically for this proposed development is Section 24 G of The National Environmental Management Act, (107 of 1998) as amended and EIA Regulations, 2010.

8. IMPACTS ASSOCIATED WITH THE BREACH OF EIA REGULATIONS, 2010

As the result of the effects of the breach of Environmental Impacts Assessment, 2010) the site has been subjected to the following impacts: -

- Loss of valuable topsoil, failure to conserve topsoil thereby resulting in a loss of precious natural resource that takes a thousand years to generate a centimeter,
- Soil erosion – the excavated topsoil and subsoil were left exposed resulting in erosion.
- Soil loss – Through wind and runoff during rainy periods.

These impacts mentioned in the above are evident on the site and are resulting factors which have completely affected the biodiversity of the site thereby undermining the existence of various ecosystem or fauna and flora of the site.

9. MITIGATION MEASURES AND STRATEGY IN RESPECT OF ILLEGAL ACTIVITY

Although not much negative impacts have been identified on the site as the result of earthworks and excavations as indicated in this document in preparation for existing structures and in preparation for the proposed structure over Ifidi River, there is substantial recovery which is evident on site (as can be depicted from recent photos taken and which are attached). During the site

inspection which was conducted on 16 March 2014, the areas affected by the unlawful commencement of illegal activities, out of 4 causeways one causeway has been eroded despite being constructed without authorisation by EDTEA. However, the following measures shall be explored as a means to mitigate further negative impacts on site: -

- Rehabilitation of areas outside existing footprints of the culvert especially the one toward Mnweni River Bridge
- Measures to ensure that stormwater from the bridges or structures does not negatively affect nearby communities, by ensuring that the outlets of these structures not to be directed toward residences.
- Storm water to be channelled off the site and use the existing acceptable infrastructure regarding the storm water management
- Strategically demarcate areas in consultation with Environmental Control Officer for the purpose of delineating areas suitable for disturbance of environment.
- Develop Environmental Management Programme for construction phase.

10. PROPOSED DEVELOPMENT (POST ILLEGAL ACTIVITY)

Despite the non-compliance to structures already constructed in this road L465 and L466, DoT is intending to persue constructing the single lane vehicular bridge as an assessment was already done and Basic Assessment Report submitted to EDTEA for authorisation.

9.1 Description of the Proposed Development

The Department of Transport (KZN) is proposing to construct a new vehicle bridge over Ifidi River. The Ifidi river is the tributary to Mnweni River, which starts at the bottom of the foot of Drakensberg Mountains, 50 km away from Bergville town.

The proposed bridge is a 95m by 5.4m wide concrete single lane bridge, made of concrete structure with columns supporting the bridge. The objective of this proposed bridge is to link the communities of ward 3 on L466 road. It is intended to assist communities especially school children of Nsetheni Primary School and also nearby community residences.

The site is located at 28° 48' 19.38"S, and 29° 2'55.58" E.

The proposed single lane vehicular bridge is 5.4m wide and is made of concrete top structure with concrete bases, which is located or spaced 14m away from the concrete columns which are located on the edge of either side of the river banks.

There is an existing footpath that on either side of the Ifidi River that provides access to the community to attend schools and gain access to various other services. This proposed bridge will connect the footpath and provide over the river to allow for safe access. The development footprint comprises of bare/ disturbed soils and degraded/ alien invaded grass. The footpath on either side of the river is degraded due to it being used daily to commute, and the river area is also disturbed by these activities. The land is mainly used for grazing of livestock and subsistence farming activities which have contributed to the site being degraded.

All disturbed areas which would be resultant from the construction activities of this pedestrian bridge will be rehabilitated post construction. This application is only for the construction of the single lane vehicular bridge. The footpath will remain as such and no upgrade or construction activities thereto are envisaged at this stage.

The project aims to provide access for road users, improve the social, cultural and economic life and resources for previously disadvantaged communities. The proposed bridge is needed to assist the rural communities and particularly school children in gaining safe access to and from school during high rainfall periods. Without such a structure, crossing this river can be potentially dangerous and a hindrance from gaining access to education and health care facilities.

The current situation on site in terms of the physical environment is such that the community is utilising the site where the bridge is proposed. It is being used as an informal crossing by the community when going to school or undertaking their domestic activities. This crossing point is

degraded from the daily commuting activities.

During the initial excavations in preparation of the columns, water will be diverted to one side of the river and as such water will be pumped out from one side of the river bank to the other side using a generator. This generator will be placed on top of the firm drip tray to allow for any unforeseen circumstance such as oil spill.

This diversion will minimally affect the flow or turbidity of the water but not so that it will cause significant erosion or disturbance to the river bed or banks. The pumping of the water will be consistent and at a rate that will be similar to that of the river system so as not to drastically change the energy of the system. The location of the generator will be on disturbed portions of the site and banks accommodating the pipes will be rehabilitated including any riparian vegetation lost. Construction will be carried out during the dry winter months where water flow will be reduced thus lessening the impact on the river system

9.2 NEEDS AND DESIRABILITY OF THE ACTIVITY

There is a great demand for the department (DOT) to construct the bridge as at the moment the school children from either side struggle to cross the river especially after rains. There is unrecorded incidence where school kids and community get drowned when trying to cross the river.

This bridge is needed not only by the school but also by the community at large from either side of the river, including most basic services such as health services, crime prevention etc.

At present the road access ends by the river on either side of the river, so there is no linkage or links for people to cross the river.

This proposed bridge is not what people would love to have but a matter of necessity as at present the community's daily domestic activities also get hampered by the river as no one know or can predict the weather. The Department of Transport has no option but to build the bridge to assist the community in improving their lives better.

9.2.1 BENEFITS OF THE ACTIVITY AS PROPOSED (IFIDI VEHICULAR BRIDGE)

As indicated above, the construction of this bridge will improve the lives of the community in terms of easy access to their homes and also to enable access of basic services such as education, health services and also enhancement of efficient crime control (police service). Also, the number of people drowning as the result of crossing the river will decrease or stop as they will have the bridge to cross over.

9.2.2 BENEFITS OF THE COMMUNITY DUE TO CONSTRUCTION OF IFIDI VEHICULAR BRIDGE

Improved services such as police service into their area, efficient and efficient health care services and daily routine domestic activities by the communities on either side of the river will be enhanced.

9.1.1 Impacts of the proposed development

Thus far the impacts of the proposed development can be viewed in 2 ways, the positive impacts and the negative impacts.

POSITIVE IMPACTS	NEGATIVE IMPACTS
As the site was previously exposed to excavations and earthworks which undermined the vegetation to a great extent, the development of the site will ensure that the site is uplifted or upgraded in order that the visual and social aesthetics of the site are acceptable and of required standards.	At present some of these structures need attention especially in shaping or rehabilitating areas around the causeways

<p>Vegetation to recover hence attention is to be given for the vegetation to grow freely. The property will be landscaped with indigenous vegetation and managed by the home owners association.</p>	<p>Vegetation is not managed properly resulting into some vegetation being damaged and not achieving recovery as it should be.</p>
<p>Improved aesthetics of the site</p>	<p>Aesthetics of the site such as scattered concrete materials, slabs and broken hard surfaces and heap of soil unattractive to the community.</p>
<p>Improved and safety travelling by community services and improved service delivery by government</p>	<p>At present the service delivery is hampered by poor conditions of the road particularly the crossing structures.</p>
<p>Development of this property will definitely decrease chances of fires as it will be built up.</p>	<p>The presence of some of these alien species encourages or is prone to fires which therefore put the nearby residents at risk of catching fires should there be veld fires in the nearby or within the property.</p>

11. MITIGATION MEASURES OF IMPACTS FOR THE IFIDI VEHICULAR BRIDGE

The mitigation measures identified in the attached Environmental Management Programme must be adhered to especially in connection to those structures that still needs further attention for

maintenance upgrade.

In order to adhere to identified impacts, the department (DoT) must appoint a suitable qualified Environmental Control Officer to monitor construction activities that has to be taken place. Monthly audits shall be done and submitted to EDTEA for compliance and reviewal (if necessary).

12. RECOMMENDATIONS

With the exception of proposed Ifidi Bridge, the upgraded causeways are not wholly sensitive, especially taking into consideration that they were all built in the existing roads which services the community of Mabhulesini (greater Amangwane Traditional Area).

The four causeways upgraded are all within heavily disturbed environment, with community residence along the road or the areas adjacent and below being used by the community when they are taking their domestic chores such as washing their clothes or doing mud blocks for their future small homesteads. The diggings in the Ifidi bridge to an extent disturbed the site's virginity as the areas which diggings was done is purely untouched. However, the same area does not have any sensitive biodiversity species or environmental feature. The only matter would have been the increased erosion or formation of gully as a result of the diggings taken place, but still there is no impacts negatively affected the receiving environment down the areas dugged.

It must be mentioned though that much has happened on the areas both L465, L466 and Ifidi as far as excavations and earthworks. In this document, issues of concern in as far as vulnerability of this site in all forms of destruction have been raised, especially formation of gullies in Ifidi and surface runoff (or erosion) in all areas affected.

It shall however be noted that as indicated in this document, this has already been identified by EDTEA, and as such the department (DoT) has thus far complied with necessary procedures which includes the payment of fine as a result of Section 24 G application which was submitted to the department towards the end of 2014, and finalised February 2015, prior recommendations by

Department of Economic Development, Tourism and Environmental Affairs in regard to the way forward as per communication dated 20 February 2015, as attached.

Therefore, based on issues raised in this document, the department is within its rights to maintain the existing roads and provision of the safe access and crossings to Public Facilities such as the schools and any other need the community might have; however there are measures and conditions that need to be put in place as recommendations to ensure the protection and care of the receiving natural environment.

The following recommendations are important:-

- (i) In light of the above and taking into all measures undertaken or stated in this report (both for the impacts of illegal activity and impacts of the work undertaken – including mitigation measures in both instances), it is recommended that the proposed Ifidi Bridge be authorised, and causeways already in place be authorised.
- (ii) These shall be authorised due to the following reasons: -
 - a) The sites or causeways within these two roads are existing, and there is no visible environmental impacts identified including possible discarding of cement debris etc
 - b) Mabhulesini Community eagerly and desperately need safe access and crossings when undertaking their everyday chores including basic service delivery by other state departments such as Policing, Education, Social Welfare etc
 - c) That when undertaking environmental assessment for the Ifidi Bridge all stakeholders are happy and authorised for the proposed single lane vehicular bridge, with safe pedestrian way along the same bridge to avoid drowning of young children when going to school
 - d) That the causeways and bridges built and proposed to these areas, as mentioned in the above does not degrade or affect the biodiversity feature

of the area as the structures are natural type of colours, which in that does not physically and aesthetically damage environmental characteristics of the area.

- e) Above, all the maintenance of existing structures and or upgrade thereof is required to be undertaken so that the naturalness of the area does not physically degraded and environmentally affected due to probable bridge or crossing debris and boulders that might also pose danger to the community.
- (iii) Therefore, prior the construction could start at Ifidi, proper measures must be in place such as ensuring that community members are aware of the construction as per EIA Regulations, 2010 and that risk measures in line with erosion prevention measures be in place especially down stream or river (Ifidi)
- (iv) That the proposed Ifidi bridge will not have a negative impact on receiving environment as the site for bridge identified is currently being used for crossing by the community and there is also a maize meal garden, which the owner consented to have the bridge
- (v) That an Environmental Management Programme (EMPr) be in place to assist the contractor during construction.
- (vi) That the EMPr is submitted to EDTEA for approval.
- (vii) That the Environmental Control Officer is appointed to monitor construction during construction phase.
- (viii) That monthly audit reports are conducted and report to be submitted to the EDTEA RD for approval.
- (ix) That all relevant stakeholders are involved during auditing; the stakeholders to be involved include the local Municipality, Ezemvelo KZN Wildlife, DW&S, EDTEA and all other stakeholders.

Despite the Department's illegal upgrade of structures along L465, L466 and excavations on Ifidi, our assessment has proven that there is no major environmental impact other than exposure of receiving environment to greater degree of site erodability factors. However, there is no recorded degradation of the sites thereby affecting the site's environmental status.

As such it is recommended that the proposed Ifidi Vehicular bridge be authorised by the Department of Economic Development, Tourism and Environmental Affairs due to the urgent need that the community requires for their everyday use, include state departments when they are undergoing their daily and required service delivery to the nearby communities or Nsetheni Primary School located across the river, Ifidi. Also, our assessment has proved that the majority of the community children attend to the school across the river, therefore constructing a formal bidge, which will accommodate both the vehicles and school children in crossing the river. As such our recommendations are that the single lane bridge be authorised with the pedestrian attached to it, as per last comments received from the Ezemvelo KZN Wildlife, as attached.

Finally, taking into consideration the developed Environmental Management Programme, the required new bridge construction will be of use to the community and will therefore uplift their standards of living. As such the mitigation measures mentioned in the developed EMPr be adhered to and the contractor be vigilant of the identified impacts and correctly attend to them all.

APPENDICES

ANNEXURE A

Site Layout Map – 1: 50 000 scale

ANNEXURE B:

Facility Drawings

ANNEXURE C

Site Photos

ANNEXURE D

PUBLIC PARTICIPATION PROCESS

- **Comments received from Ezemvelo KZN Wildlife dated 18 August 2013**
 - **Comments from Department of Water and Sanitation**
 - **Comments from Okhahlamba Local Municipality**
 - **Comments from Ward 5 Councilor**

ANNEXURE E

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ANNEXURE F

Attendance Register

ANNEXURE G

Minutes of Public Meeting

ANNEXURE H

Environmental Management Programme