



Motivation for the Exemption from SAHRA

File Reference Number:

17/2/3N-210

Project Title:

Rehabilitation of Provincial Road P127/2 (25.5km) between National Road N4 (Middelburg west) and Provincial Road D914 (Van Wykslei), Nkangala District Municipality, Mpumalanga Province.

Prepared for

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Introduction

An application to undertake a Basic Assessment for the rehabilitation of Road P127/2 was hand delivered to the Nkangala district Office on the 31st October 2012. The MDEDET acknowledged receipt of the application on 20th November 2012 and allocated the project reference number; 17/2/3N-210. The application included a suite of potential listed activities that could be triggered by the activities proposed in the original project description. The EAP, Ecoleges, subsequently engaged representatives from the National Department, IEM Policy and Regulatory Support, including the Deputy Director, Mr Franz Scheepers, to seek clarification on the potential listed activities and, in particular whether they applied to the activities proposed for the rehabilitation of Road P127/2. The engineer, Endecon, was also consulted to investigate alternatives and amend the original proposed activities thereby reducing their thresholds and impacts to avoid triggering certain Listed Activities.

The number of applicable Listed Activities were reduced to one; LA No. 18 of GNR 544. Furthermore, a BA will not be required if the MDEDET agree in writing that the proponents intentions constitute 'maintenance' because activities (as per LA No. 18 of GNR 544) for maintenance purposes undertaken in accordance with a management plan agreed to by the relevant environmental authority are excluded from having to undertake a Basic Assessment (BA). Mr Franz Scheepers, of DEA, recommended that we consult the provincial environmental Department in this regard. A motivation to undertake an EMP instead of a BA, including, inter alia, the Engineer's reasons for considering the relevant works as 'maintenance' (Appendix A) was subsequently delivered to the Competent Authority (CA) in December, 2013. We are still waiting for a response from the Department.

In the interim, we are continuing with the Basic Assessment (BA) process, specifically the Public Participation Process (PPP). SAHRA was informed accordingly, specifically in respect of that part of the project that may require authorisation; replacement of culvert C7.

Considering that all other activities, related to the rehabilitation of the Road P127/2, do not trigger any construction or expansion activities in terms of the EIA Regulations, 2010 and Listing Notices, construction will commence in the near future. The section that may require environmental authorisation (culvert C7), and those remaining two culverts for which a General Authorisation in terms of the National Water Act, 1998 has been applied, will only be rehabilitated toward the end of construction once the applicant has obtained the aforesaid authorisations.

We sincerely request the SAHRA to review this motivation for exemption from undertaking the specialist studies requested in your comments received on the 05th February, 2013 (Case ID 1489).

Detailed Project Description (provided by Endecon)

The project entails the rehabilitation of Provincial Road P127/2 (25.5km) between National Road N4 (Middelburg west) and Provincial Road D914 (Van Wyksvlei), Nkangala District Municipality, Mpumalanga Province. The rehabilitation of the road will take place within the declared road reserve. We do not foresee any activity outside the proclaimed road reserve (pers. comm. Wihan Venter, Endecon). The horizontal and vertical alignment of the road will stay the same. There are two bridges on the road, but they will not be widened because they are wide enough to accommodate the proposed works. Rehabilitation will involve milling and repair to damaged sections of road, widening, including a climbing lane with a length of approximately 830m, and the replacement, repair or extension of existing culverts along the route.

Milling and repair

The upper layer of the road's surface will be milled and compacted before being resurfaced.

Roadway including climbing lane

The existing road was constructed with a 3m gravel shoulder. The surfaced width will increase by 2.7m per side. The surfaced area of the road will be 'widened' within the existing gravel shoulder or shoulder breakpoint of the roadway (Appendix B). The shoulder break point is considered by the DEA to be the edge of a road. Consequently, and with the exception of the proposed climbing lane, the road is not being widened.

The total width of the surfaced road at the climbing lane will increase by 6.4m (Appendix C). However, the shoulder break point or the toe of the fill along the climbing line will not increase by more than 2.54m.

Culverts in watercourses

Apart from the two rivers (or bridges), only three other watercourses were identified along the route. All three watercourses contain culverts; C7, C23 and C46.

C7: the concrete culvert will be replaced by a larger culvert. The footprint, as demarcated by the edge of the concrete floor slab, will remain the same, only the height will increase. A conservative estimate of the amount of material or soil that will be filled into or removed from the watercourse during repair work to the foundation of the culvert is 20m³. The road width will not be increased beyond the original shoulder break point or the toe of the fill.

C26: the floor slabs will be replaced on the inlet and outlet with like-on-like. The movement of material or soil into or from the watercourse associated with rehabilitation work, including, *inter alia*, repair work to the foundation of the floor slabs, will not exceed 5m³. The road width will not be increased beyond the original shoulder break point or the toe of the fill.

C43: The left inlet slab will be repaired and the outlet wall will be replaced with like-on-like. The movement of material or soil into or from the watercourse associated with rehabilitation work will not exceed 5m³. The road width will not be increased beyond the original shoulder break point or the toe of the fill.

Traffic Accommodation at Culvert C7

- Alternative 1

One temporary bypass, approximately 100m long and 6m wide, was originally proposed to divert traffic around C7. The temporary bypass would not be wider than 8m, but it would exceed 50m² in size and involve filling more than 5m³ of material into a watercourse.

- Alternative 2

Consequently, an alternative method of accommodating traffic was sought. It was proposed that Culvert C7 be constructed in ½ widths so that one lane of traffic can be accommodated on the existing road. The second lane of traffic will be accommodated on the farmer's gravel road and an existing low level bridge. The link roads to and from the farmer's road will be further than 32m from the watercourse and will not exceed 4m in width. The existing farmer's gravel road will not be expanded by more than 10 sqm or widened by more than 4m.

- Alternative 3 (Preferred)

The last, and preferred, alternative is to add an additional barrel to both ends of the culvert, whilst remaining within the existing footprint of the structure, demarcated by the edge of the concrete floor slab. The increased width of the road will enable construction in ½ widths and the accommodation of both lanes of traffic within the existing road. This will negate the need for a new or existing crossing and avoid entry onto the adjacent property and servitude(s).

Legislative Background

The applicable section taken from the **National Heritage Resources Act, 1999 (Act No. 25 of 1999)** reads as follows:

Heritage resources management

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as—

(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;

(b) the construction of a bridge or similar structure exceeding 50 m in length;

(c) any development or other activity which will change the character of a site—

(i) exceeding 5 000 m² in extent; or

(ii) involving three or more existing erven or subdivisions thereof; or

(iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or

(iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;

(d) the re-zoning of a site exceeding 10 000 m² in extent; or

(e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

(2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)—

(a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or

(b) notify the person concerned that this section does not apply.

Listing Notice 1, GN No. R.544, GG No. 33306, 18th June, 2010 provides the definition of “construction,” which means the building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of a listed or specified activity but excludes any modification, alteration or expansion of such a facility, structure or infrastructure and excluding the reconstruction of the same facility in the same location, with the same capacity and footprint;

The proposed project does not constitute ‘construction’ and will not change the ‘character of the site.’ It can be argued that the road is being reconstructed.

Detailed Site Description

Provincial Road P127/2 (25.5km) is located between National Road N4 (Middelburg west) and Provincial Road D914 (Van Wyksvlei), Nkangala District Municipality, Mpumalanga Province (Appendix D). There were no indications of any graves during visual investigations undertaken on the road and the 40m road reserve (pers. comm. Wihan Venter of Endecon Ubuntu Pty Ltd Engineering Consultants). A topographical survey was also undertaken by a professional Land surveyor, specifically tasked to record and survey any structures including buildings, kraals, graves, old structures and the like within the road reserve, but none were reported (pers. comm. Wihan Venter of Endecon Ubuntu Pty Ltd Engineering Consultants).

Geology

The route is underlain by both the Karoo Supergroup (most widespread stratigraphic unit in Africa south of the Sahara Desert) and the Transvaal Supergroup. The portion of the route traversing the Karoo Supergroup is made up of rocks from the Dwyka (glacial) and Eccca Formations. The Dwyka (C-pd) formation typically possesses tillite, sandstone, mudstone and shale. The Eccca (Pv) formation is typically made up of sandstone, shale and coal. The presence of coal in the lithology found on the Simplified Geology of Southern Africa correlates with the coal mining activity common to the Middelburg/Witbank area. The sections of the route underlain by the Transvaal Supergroup contain rocks of the Rooiberg group (Vse) made up of red porphyritic rhyolite and Loskop formation (Vlo) – shale, sandstone, conglomerate and volcanic rocks. The geology of the area surrounding Middelburg, Witbank and Carolina is shown in Figure 1.

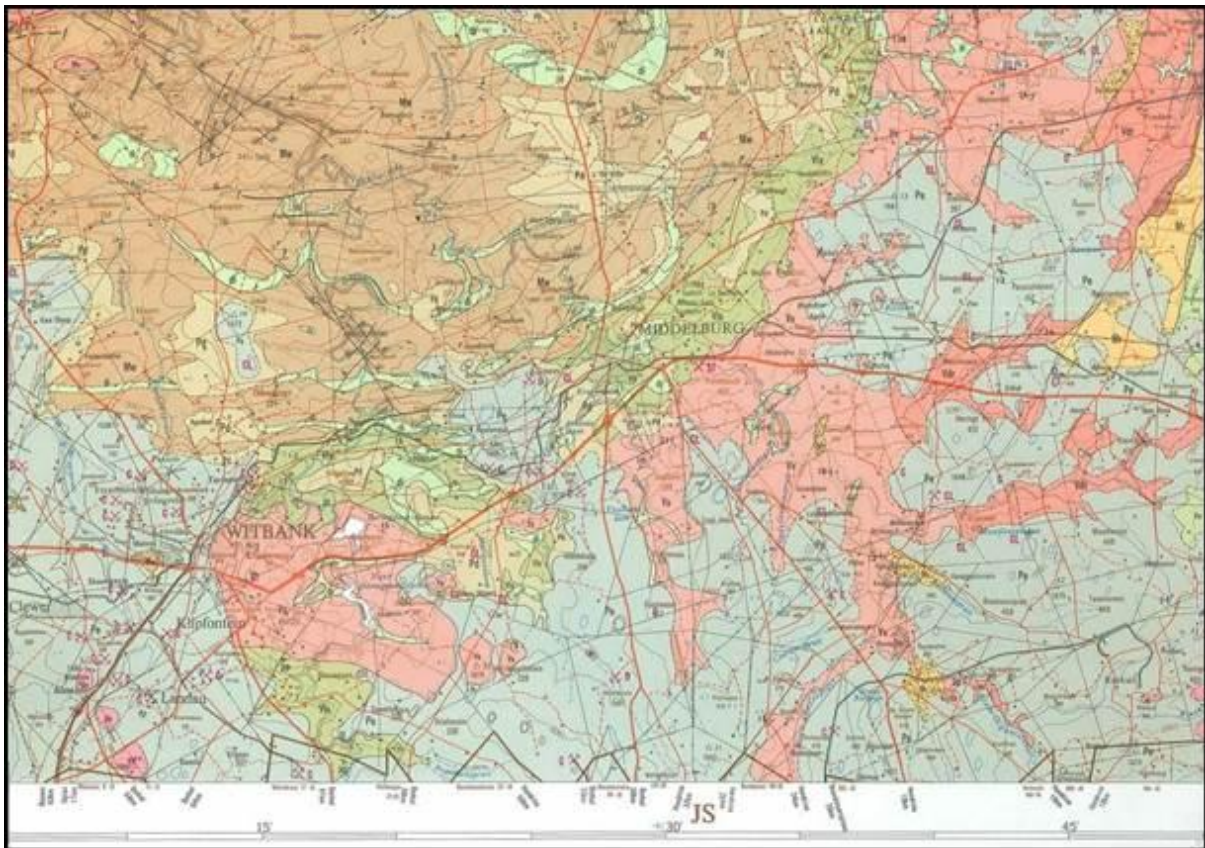


Figure 1. Geology of the Road P127/2

The Climbing Lane

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

Latitude (S):

Longitude (E):

25°	50.820'	29°	24.116'
25°	51.045'	29°	24,025'
25°	51,266'	29°	23,935'

Culverts in watercourses

Watercourses, as defined in terms of Act, were identified using GIS during an initial desk top study and verified during a preliminary site assessment. The two rivers identified during the desk top study will not be impacted by the proposed rehabilitation works because the existing bridges are wide enough. However, 4 additional watercourses, specifically natural depressions or wetlands, were identified during the preliminary site assessment. A follow-up site assessment was undertaken with a DWA representative, Mr Sampie Shabangu, to ensure that all watercourses are identified. Although four watercourses were identified during the preliminary site assessment, only three were recognised/confirmed by the DWA during the final assessment; C7, C26, and C43.

Culvert C7

- Centre point of the activity

Latitude (S):

Longitude (E):

25°	51.352'	29°	23,899'
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Figure 2. Inlet (left) and outlet (right) of Culvert C7.

Culvert C26

- Centre point of the activity

Latitude (S):

Longitude (E):

25°	54.329'	29°	23,689'
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Figure 3. Inlet (left) and outlet (right) of Culvert C26.

Culvert C43

- Centre point of the activity

Latitude (S):

Longitude (E):

25°	57.369'	29°	21,732'
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Figure 4. Inlet (left) and outlet (right) of Culvert C43. Duvha Power Station is in the background.

Conclusion

The nature of the project (refer to Detailed Project Description) does not justify the need for an impact assessment report. The proposed rehabilitation of the P127/2 does not constitute 'construction' and will not change the 'character of the site' because it occurs on an existing footprint and previously disturbed areas within the existing road reserve. It can be argued that the road is being reconstructed.

The road was originally constructed circa 1970 (Figure 5). Consequently, none of the structures or infrastructure associated with the Road P127/2 are older than 60 years and do not qualify as heritage resources. Furthermore, there were no indications of any buildings, kraals, graves, old structures and the like within the road reserve during a visual investigation(s) and survey of the road by the Engineer and a professional Land Surveyor, respectively (pers. comm. Wihan Venter of Endecon Ubuntu Pty Ltd Engineering Consultants). A brief description of the geology is provided, but no excavations will take place in undisturbed or natural areas.



Figure 5. The date when the bridge on the Road P127/2 was constructed or completed.

APPENDIX A: Engineer's Motivation for the Definition of Maintenance

APPENDIX B: Engineer's Motivation for the Definition of a Road

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APPENDIX D: Site Layout Plan