

Final Basic Assessment Report for the Proposed Road Deviation (D4380) at Mogalakwena Platinum Mine

Report Prepared for

Mogalakwena Platinum Mine



Report Number: Rev. 435183/1

LDEDET Reference Number: 12/1/9/1-W37

NEAS Reference Number: LIM/EIA/0000181/2011



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August 2012

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SRK Project Number: Rev. 435183/1

August 2012

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Executive summary

Mogalakwena Mine (Anglo Platinum) and Roads agency Limpopo (RAL) proposes to re-align a portion of the D4380 Provincial Road along a route as close as possible to the western boundaries of the farm Zwartfontein 818 LR, to allow for the expansion of mining activities (Expanded open pit and waste rock dump) once the necessary surface lease has been obtained, in a westerly direction. The road deviation will take place outside the mine lease area.

The road deviation and upgrading of a link in the roads infrastructure will constitute an important link between the towns of Bakenberg and Mokopane. The existing gravel road D4380 Provincial Road will be upgraded and tarred over some of its length providing an improved transport network for the local community. A section of the road will be re-aligned and the re-aligned section will also be tarred.

SRK's role in the project

SRK has been appointed by Mogalakwena Platinum Mine as the independent consultant to undertake a Basic Assessment Report (BAR) to inform an environmental authorisation decision in terms of the Government Notice No. R. 544 in the Environmental Impact Assessment Regulation, 2010 in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) for the proposed project.

Relevant authority and legislation

The application for environmental authorisation is within the jurisdiction of Limpopo Department Economic Development, Environment and Tourism (LDEDET) and addressed to this authority. The following legislation is triggered:

Title of legislation, policy or guideline:	Administering authority:	Date:
South African Roads Act (Act No. 74 of 1998)	National	1998
Constitution of the Republic of South Africa Act No108 of 1996	Government authorities responsible for environmental management	1996
Environment Conservation Act No 73 of 1989	Department of Environmental Affairs and Limpopo Department of Economic Development, Environment and Tourism	1989
Conservation of Agricultural Resources Act No 43 of 1983	National Department of Agriculture and Limpopo Department of Economic Development, Environment and Tourism	1983
National Environmental Management Act No 107 of 1998	Department of Environmental Affairs and Limpopo Department of Economic Development, Environment and Tourism	1998
National Environmental Management: Air Quality Act No 39 of 2004	Department of Environmental Affairs and Limpopo Department of Economic Development, Environment and Tourism	2004
National Environmental Management: Biodiversity Act No 10 of 2004	Department of Environmental Affairs and Limpopo Department of Economic Development, Environment and Tourism	2004
National Heritage Resources Act No 25 of 1999	South African Heritage Resources Authority	1999

National Water Act No 36 of 1998	Department of Water Affairs	1998
Occupational Health and Safety Act No 85 of 1993	Department of Labour	1993

The environmental authorisation process

The BA process comprises of listed activities published as a Government Notice No. R. 544 in the Environmental Impact Assessment Regulation, 2010 in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998). This process is undertaken for activities identified in Government Notice No R. 544, as these activities are less likely to cause significant environmental and social impacts.

The BA process requires public participation to be conducted as a way of identifying other issues from the Interested and Affected Parties (I&APs) and providing an opportunity for them to comment on the documents for the project. The flow diagram represented in Figure 1 presents the key activities that will be undertaken over the next few months.

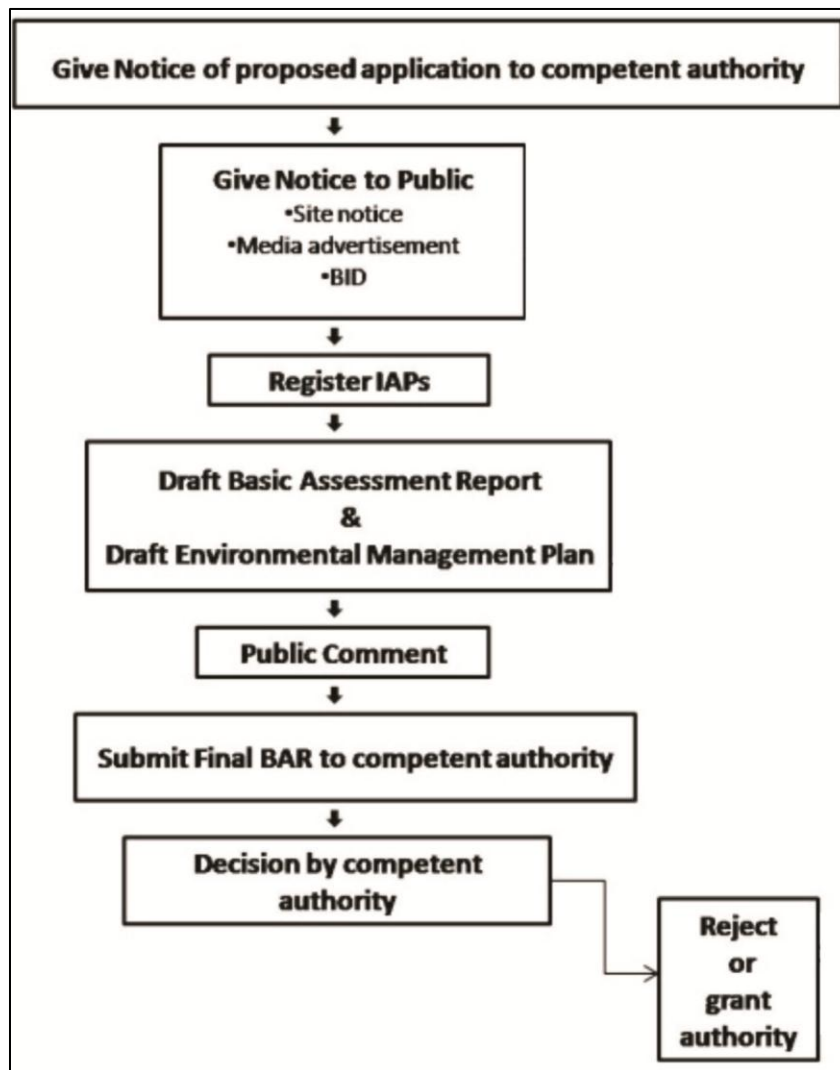


Figure 1: Basic Assessment Process

The proposed development

Mogalakwena Platinum Mine is situated in Limpopo province, in the jurisdiction of the Waterberg District Municipality. The following infrastructure is proposed at Mogalakwena Platinum Mine:

- The realigned section of the D4380 Road will be upgraded to a 9.4 metre (m) wide road, comprising a 7.4m wide tarred surface and 1m wide gravel shoulders on either side. The total width of the road servitude will be 30m wide conforming to the Road Agency Limpopo requirements.) See figure 2 'Proposed Road deviation at Mogalakwena Mine.
- The current road D4380 is classified as a road category C which stands for Highly Trafficked Rural Road. The road will be designed according to the norms and standards published in geometric design guidelines from the South Africa National Roads Agency and will be carried out by RAL (Roads Agency Limpopo).
- The maximum speed limit will be reduced to 80km/h due to pedestrian activity. There is a school to the west of Ga- Masenya village and the road will pass between the village and the school. Traffic calming measures and a further reduction in the speed limit, to 60km/h will be implemented in this area.
- Taxi pull off points in both directions will also be created to facilitate traffic flow along the road and will be provided.
- A section of the existing security fence of the Seritarita Secondary School approximately 300m long will be relocated to accommodate the new alignment of the road. Length of the Road Deviation will be: 3.95 km.

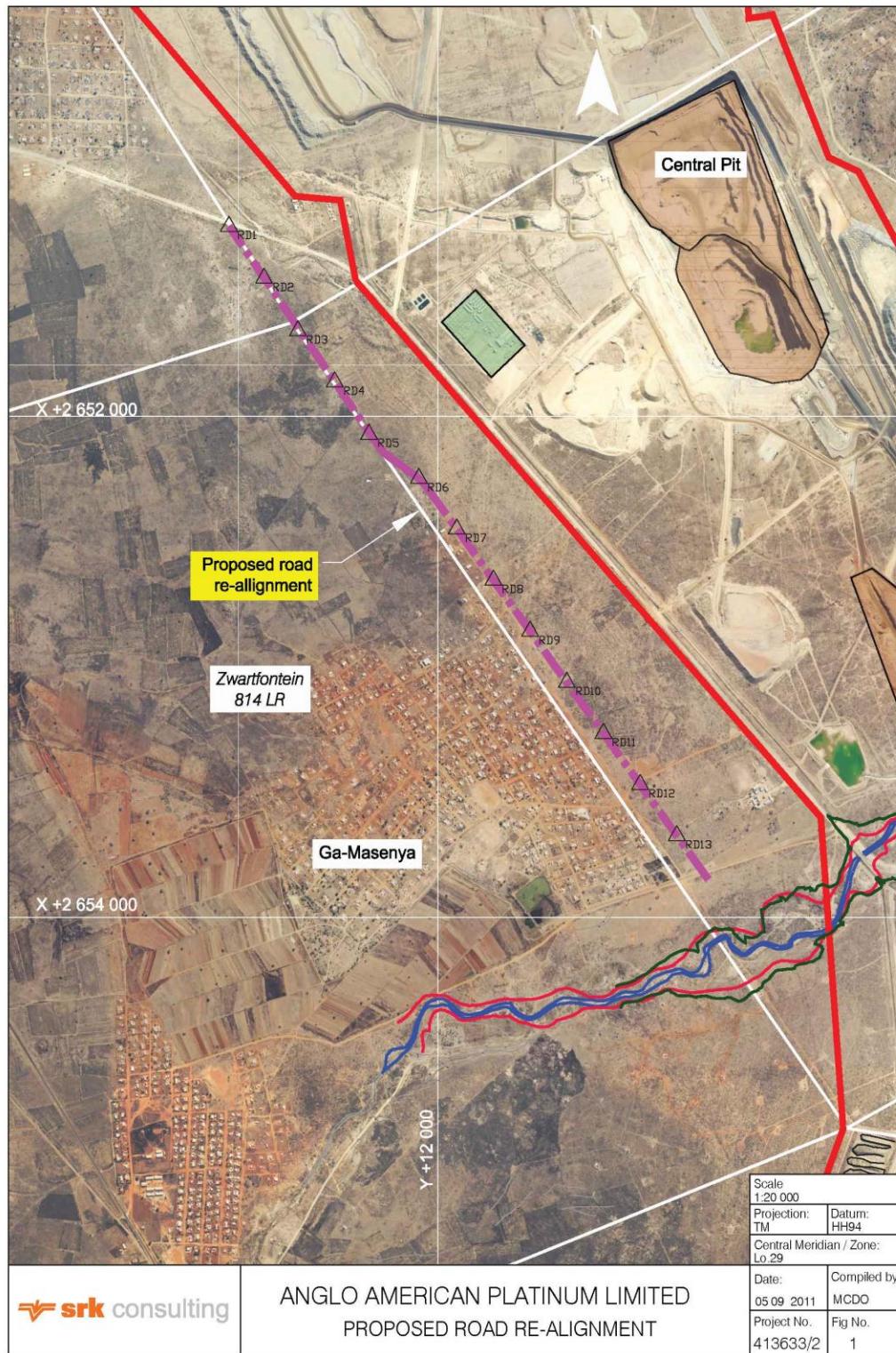


Figure 2: Proposed Road deviation at Mogalakwena Mine

Alternatives for the proposed project

This project is financed by Anglo American Platinum as part of their expansion of their mining activities of the Mogalakwena Platinum Mine and their contribution for the improvement of the roads infrastructure in the vicinity of the mine. The proposed activity will result in the objectives of the mine being met, while at the same time providing an improved access road for the community. There will be impacts during the construction phase but these will not be more significant than those associated with any construction of this nature. Following construction, the benefits to the mine and the community will be realized but there will be certain negative impacts related to the increased proximity of the road to the community and its new location between the village and school. These impacts can, however, be managed. In order to extend the life of mine and expand Mogalakwena Platinum Mine mining operations they require access to the areas of the farms Zwartfontein 818 LR and Overysel 815 LR which lies east of the existing road. Mogalakwena Platinum Mine is currently negotiating the lease agreements with the landowners to extend their surface lease area right up to the farm boundaries of Zwartfontein 818 LR and Overysel 815LR. To unlock the area they need for future mining the new road alignment has been designed to run as close as possible to the boundary of the farms Zwartfontein and Overysel. The current proposed route of the road deviation is the most feasible route as it is a safe distance from the grave sites and houses.

The mine and the road design team have previously examined alternative locations for the proposed road deviation. However they were not feasible alternatives as they were either too close to grave sites or house. Hence the current location for the proposed road is the most feasible location as it is a safe distance away from the grave sites and houses.

Motivation for the proposed project

Demand for the activity relates to both the mine, who will benefit as a result of their expanded activities and the community, who will benefit from the improved road. Anglo Platinum has had numerous meetings with the local municipality around this application and the district and local municipality support this application as it falls with their Integrated Development Plan.

Potential environmental and social impacts

Waste

Minimal solid waste will be generated by the road realignment. It is anticipated that a small percentage of waste material (concrete, cement bags, off cuts, surfacing material etc) will be produced during the construction phase. Soil and rock material which is removed during the clearing phase may be used as road fill material or will be used in the rehabilitation process. As part of rehabilitation, all disturbed areas will be returned to their original state. Waste material will be disposed of at the mines existing waste disposal facilities and according to existing procedures for the mine.

Water

Should any hazardous water be generated and which is not anticipated, it will also be disposed of using the mines existing procedures, which provide for temporary storage before removal under contract to a registered hazardous waste site. All water requirements will be met using the mine water supply

Employment

Temporary construction work will be created as follows: 35 persons for 8 months. No new permanent employment opportunities will be created.

Dust

During construction, typical construction vehicles will be used, emitting diesel fumes and generating dust. No additional traffic is expected to be generated as a result of this road re-alignment and upgrade and therefore there will be no incremental emissions in the operational phase. Following construction, the expected increase in traffic volumes will be as predicted for the road, irrespective of the re-alignment and upgrade. The re-alignment and upgrade will therefore not contribute to increased traffic. Less dust will be generated because the road will be tarred

Noise

The noise impact will be limited to the construction phase and will be temporary in nature.

Energy

Diesel will be used during the construction stage to fuel construction vehicles. The project has no other additional energy requirements. Energy use during the operational phase will remain as at present, fuel consumption by existing traffic.

Specialist studies

A biodiversity assessment and cultural heritage assessment was conducted for the proposed project. A summary of these assessments can be found below.

The Heritage specialist identified numerous sites, described in the report which would need to be avoided in the road re-alignment. This resulted in a revision of the re-alignment route. Most of the sites identified were graves. The revision of the re-alignment route was made available to the specialist who noted that the distance from the sites to the edge of the road reserve were 15 metres or more and therefore constituted a potential risk to damage the graves. Recommendations were put forward for additional protective measures for the graves on Sites 3, 4, 5, 8-11. It must be noted that the Heritage study in Appendix D refers to the re-aligned route prior to the revision. Anglo Platinum is currently in consultation with affected households and that South African Heritage Resources Agency has been consulted and their comments are included in the report.

The Biodiversity expert concluded, the areas surrounding the road, although constituting of natural veld, are heavily utilised and highly disturbed as indicated by a dominance of

Dichrostachys cinera (sickle bush) and *Eragrostis tef* (weeping love grass) as well as patches of *Agave sisalana* (sisal), a declared invader. There are however some indigenous species such as *Aloe marlothii* (tree aloe) and *A. greatheadii*, and various *Acacia* spp. (e.g. *Acacia tortilis*, haak-en-steek) indicating natural bush. These areas are not of conservation importance but any disturbance due to borrow pits etc. need to be rehabilitated.

Of extreme importance however is the presence of a rocky outcrop or inselberg with a unique compliment of species in comparison to the surrounding area and thus is of high biodiversity importance. Due to the potential sensitivity of this area, it should be considered a No-Go area with at least a 50m area of influence surrounding it. It is recommended that the proposed road deviation be approved with the provision that the rocky outcrop and associated no-go zone be avoided.

Stakeholder engagement:

The Basic Assessment process completed has included the activities listed below:

- Project meetings involving SRK and Mogalakwena Mine;
- Meeting the regulatory authorities (LDEDET) on the 6th of June 2012;
- Identification of stakeholders and development of an IAP database (Appendix G1).
- Review of available baseline information:
 - Background Information Document (BID) and Invitation Letters were emailed to stakeholders on the 10th of October 2011;
 - Adverts were placed in the *Bosvelder* and *Noordelike Nuus* on the 7th of October 2011;
 - Posters were placed in the following venues on the 17th of January 2012:
 - Mogalakwena municipality Building;
 - Mogalakwena public library;
 - Post Office in Mokopane;
 - Mapela Tribal Hall; and
 - Mogalakwena Mine.
 - Copies of all of the Public Participation documents can be found in Appendix G2-G7. The comments period ended on the 25 October 2011;
- Public open day held on 19 October 2011. Copies of the information presented at the public open day are in Appendix G7;
- The Issues and Responses report compiled for the project is to be found in Appendix E;
- On the 17th of January 2012 the compiled Draft Basic Assessment Report was sent out to LDEDET for a 40 day comment period and made available for Interested and affected parties during a period of 30 days at the following venues:
 - Mogalakwena municipality Building;
 - Mogalakwena public library;
 - Post Office in Mokopane;
 - Mapela Tribal Hall; and
 - Mogalakwena Mine.
- The Final Basic Assessment Report (FBAR) is currently sent out to the authority (LDEDET) for a 40 days comment period, starting on the 6th of August 2012.
- An executive summary of the FBAR is made available for the public during a 30 days comment period from the 6th of August 2012.
- The full FBAR is made available for downloading on SRK's website from the 6th of August.

- An advert will be placed in the newspaper on the 6th of August 2012, notifying stakeholders that the FBAR is out for a 30 day comment review period.
- Comments from the public after reviewing the FBAR must be sent directly to LDEDET:

Att: Assessing Officer Mr. Oscar Selamolela,
20 Hans Van Rensburg Street/19 Biccard Street,
Polokwane
0700
Tel: 015 290 7160

Conclusion

A comprehensive public involvement and specialist studies has been implemented in BAR. Impacts have been identified and suitable mitigation measures have been recommended in this FBAR. This FBAR has been submitted to both stakeholders and LDEDT for final review. Once LDEDET has reviewed this report and provided us with feedback on the environmental authorisation, all stakeholders will be notified.

