

4.2.2 CONSTRUCTION PHASE ACTIVITIES

The following significant activities are expected to take place during construction:

- setting up a contractor's lay down area;
- clearing of vegetation in line with a biodiversity management plan to be developed for the project;
- stripping and stockpiling of soil resources in line with a soil conservation procedure to be developed for the project;
- developing borrow pits within the project area for sourcing haul road building materials;
- establishing haul road;
- delivery of materials;
- excavating water storage dams;
- preparing residue disposal areas (if applicable); and
- general building activities including the erection of structures.

Borrow pits for the development of the site may be required. The size and position of these pits will be determined during the EIA process.

4.2.3 OTHER SUPPORT SERVICES

4.2.3.1 Construction workforce and housing

At this stage it is expected that no new jobs will be created and that the current workforce will move from the current mining operations to this proposed Hoogland project.

4.2.4 CONSTRUCTION PHASE TIMING

The bulk of construction activities to enable the build up to full production should take 2 years, the proposed start time is the second half of 2011 depending on the EIA authorisation process.

4.3 OPERATIONAL PHASE

4.3.1 MINING OPERATIONS AND SURFACE INFRASTRUCTURE

The mining and mineral processing operations that are likely to be used for the project are illustrated conceptually in Figure 4-2 with an overview provided in Table 4-1. As the mine is an existing platinum producing operation, the current operations comprise an underground mining operation. An outline of the current and proposed mining operations is provided below. The proposed project will not increase the planned throughput capacity of the mine or processing plant.

The proposed project will involve the surface mining of two additional pits (the south and the north pits on Figure 4-1 and Figure 4-1), with conceptual areas of influence of 28ha and 36ha respectively.

The proposed mining operations will be carried out by open pit and continuous backfill mining method. Initially two box cuts will be excavated on the extremities of the north and south pits. The waste material will be excavated and dumped on a 5.5million tonne stockpile adjoining the two pits. Once the initial waste material is removed AQPSA will continue mining waste material in 100m wide strips and this material will be backfilled into the mined out areas that will then be rehabilitated. Once the ore body has been completely mined out the temporary waste dump will be reloaded and backfilled into the final remaining void. Topsoil will be place over the backfilled material.

The mining operation will be a conventional truck and shovel operation with the following equipment being used:

- excavators;
- dump trucks;
- articulated dump trucks;
- bull dozers;
- graders;
- water bowsers; and
- a service vehicle.

The proposed opencast operation will not increase the production rate at the mine but will be used to supplement the underground ore feed to the mineral processing plant. It is proposed to mine the pits at a rate of about 50 000 tonnes per month.

4.3.2 OTHER SUPPORT SERVICES

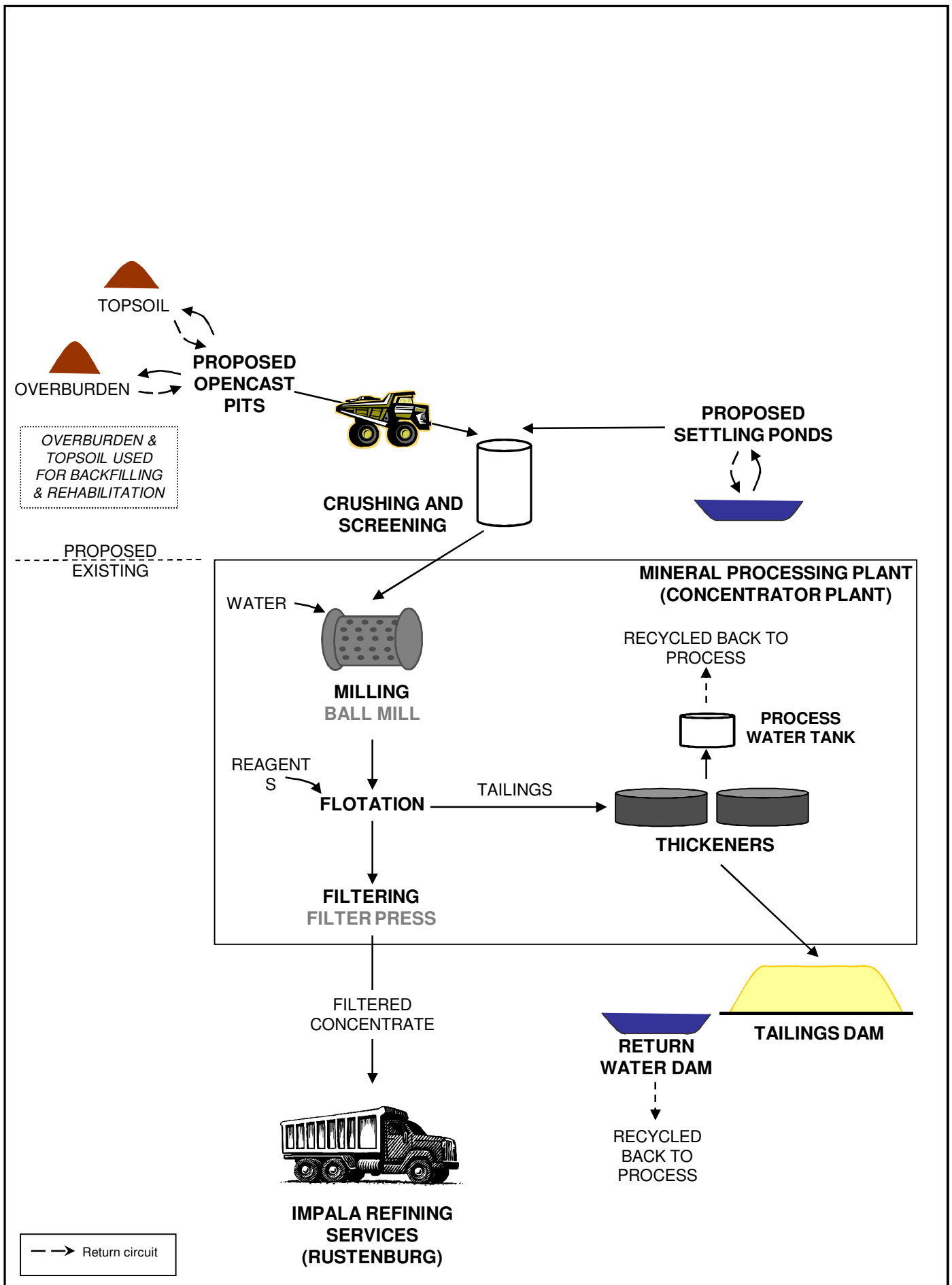
4.3.2.1 Existing support facilities at the mine

These facilities include; three contractor's areas (one for the opencast contractor, one for the underground mining contractor and one for the plant) – each contractor's area comprises one or all of the following facilities depending on their requirements: offices, workshops, stores, salvage yards, change houses with ablution facilities;

The location of these facilities is shown in Figure 2-2. An existing mining contractor and contractor's area (located at the mine site) will be used for the project. No additional support facilities are planned for the project.

4.3.3 LIFE OF MINE

The mine design allows for approximately 5.5 years life of mine.



4.4 TRANSPORT SYSTEMS

By way of general description of the current transportation network at the Everest Platinum Mine; transport to and from the mine is via trucks, buses and private vehicles. There is an established surfaced road providing access to the mine from the Roossenekal-Lydenburg road (R577) (Figure 1-2). Transport within the mine's boundary involves the mechanisms mentioned above with the addition of conveyor systems and pipelines. There is an internal service road at the mine connecting the current mining operations to the processing plant and AQPSA offices. There is a network of haul roads servicing the Everest underground mining operations. There is a conveyor system feeding ore from underground to the crusher plant. From the crusher plant, there is a conveyor system feeding crushed ore to the processing plant. There is a network of pipelines pumping tailings from the processing plant to the tailings dam and return water from the return water dam back to the process.

For the proposed Hoogland project, the following additional internal transport mechanisms are planned:

- haul roads to service each open pit
- access road for administration and management

The approximate location of a corridor for the proposed haul road are shown in Figure 2-2. The exact route will depend on the criteria outlined in Section 5.2.2..

With regards to traffic volumes only 28 loads will be transported up and down the haul road over a 24hr period. The proposed opencast operations will replace the current operations and ore from the opencast operations will only supplement feed to the plant, no additional traffic to and from the mine is expected. The proposed project will not increase the production rate at the mine and throughput capacity of the plant.

4.5 WATER SUPPLY AND MANAGEMENT

Water at the mine is sourced from boreholes and groundwater inflows into the existing underground mine. The water is pumped to storage tanks before being used in the Everest mine operations. Approximately 110 m³ of potable water, 950 m³ of mine process water and 3 840 m³ of plant process water is used by the mine per day. As the proposed Hoogland project will not increase the production of the mine nor employ additional staff, no additional water will be required.

There are storm water management and pollution control facilities at the mine including two sewage plants, a return water dam, settling ponds and storm water dams. For the proposed Hoogland project, water management facilities for the control of storm water and for pollution prevention will be designed to meet the requirements of regulation GN 704 and the new guideline series as produced by DWA in 2009.

The Hoogland dirty water areas have been kept to a minimum to reduce the quantity of dirty water that has to be managed by the mine. In all areas where there is storage/handling of hazardous substances (fuel, lubricants, chemicals), there will be containment of spillages on impermeable floors, within bunded areas, and in collection sumps/bunds with traps that can contain more than the volume of the hazardous substances. This approach should ensure that the contamination in the dirty storm water runoff dams is kept to a minimum.

Four main dirty water generating areas have been identified:

- workshop;
- opencast Area (north);
- opencast Area (south); and
- waste rock dump.

All of these areas are to be mitigated with dedicated surface water management infrastructure. The possible exceptions to this are the opencast areas, which may be able to retain all incident rainfall, such that no runoff of dirty water will occur. Two (2) dirty water dams will be constructed adjacent to the pits and the water used as dust suppression for the roads and pit area, an additional water will be disposed off by the water bowser for use at the plant. Any dirty water from these areas will then be expected to be pumped out and back to the plant where it will be utilised in the overall mine water circuit (i.e. part of the pit dewatering strategy).

Subject to an exclusion of the opencast areas, the four dirty water areas will be operated as separate dirty areas and all water generated from within them will therefore be contained as such according to GN 704.

The storm water management plan will include a single diversion, flowing around the eastern side of the proposed mine works. This diversion is made up of a berm (compacted earth fill) and channel which will be positioned upstream of the dirty areas for the purpose of diverting clean water surface flow around the site, whereupon it will reconnect with the natural watercourse. The diversion has been split into a western half which will certainly require a berm and channel to contain flows; and an eastern half which may not require a berm and channel (as it will be able to take advantage of the natural channel).

There is a foreseeable complication in implementing the clean water diversion for the site, which is as a result of the steep rocky terrain. Consequently, the excavation of a channel may be problematic, particularly where clean water catchments are required to accumulate flow from one to the other.

4.6 POWER SUPPLY

Power at the mine is supplied by Eskom via a 132 kV power line. There is a substation at the mine used to distribute power throughout the mine. Within the mine boundary, the power is mainly distributed by 11 kV power lines. Approximately 30MVA of power is currently used by the mine.

For the proposed Hoogland extension the mine's power supply network will be extended by establishing 11kV power lines to service the open pits. The power line will run from the existing mine substation and will run parallel with the haul road servitude. The conceptual route of the power line/s is illustrated in Figure 4-1.

4.7 WASTE MANAGEMENT

4.7.1 SEWAGE

There are two sewage plants at the mine, one at the underground mine portal and one at the concentrator plant (Figure 4-1). Collectively, the two sewage plants are capable of treating 450 m³/month of sewage. As the proposed project will not result in additional operational jobs, no additional sewage plant capacity will be required for the operational phase.

During the construction of the open pits, chemical toilets will be made available at the construction site. During operations the same toilets will be used and will be pumped as and when required and the contents trucked to one of the two Everest mine's sewage plants for treatment.

4.7.2 NON-MINERALISED WASTES

The domestic and industrial waste produced by the mine is collected on site in demarcated areas and disposed of off-site at permitted waste disposal facilities.

No additional volumes of domestic or industrial waste will be generated. Any waste generated by the project will be dealt with in accordance to the mine's waste management procedure. As a result, no waste will be stored at the Hoogland extension, and instead this waste will be transported back to Everest Platinum mine's waste management facilities.

4.7.3 MINERALISED WASTE DISPOSAL

4.7.3.1 Tailings disposal

There will be no tailings disposal on the Hoogland site.

4.7.3.2 Waste Rock and overburden stockpile

A waste rock/ overburden stockpile will be provided for a 5.5 year life of mine the open cast section. The only additional mine residue that will be generated by the proposed Hoogland project will be the overburden from the open pits. Similar to the current operations, overburden will be temporarily stockpiled on site for rehabilitation of the open pits. The overburden will be stockpiled in close proximity to the pit from which it came.

4.8 CLOSURE

The topsoil will be stripped in the areas designated for surface infrastructure and will be stockpiled and used in rehabilitation after closure. The surface area will be levelled and re-vegetated as required. Funding for mine closure is allowed for by AQPSA within their business case.

4.9 EMPLOYMENT AND HOUSING

No additional jobs are planned for the proposed opencast mining operation.

4.10 TIMETABLE

If environmental authorisation is issued to the mine AQPSA would like to start mining the proposed open pits in the second half of 2011. It is estimated that the proposed pits will take approximately 5.5 years to complete.

4.11 RELEVANT NEMA LISTED ACTIVITIES

The relevant listed activities (in terms of the NEMA EIA Regulations) which are relevant to the proposed project are listed below.

- The project incorporates several listed environmental activities as identified below. The “identified environmental activities” in terms of National Environmental Management Act, 107 of 1998 (NEMA), include:
 3. Activities in terms of Regulation 386;
 - a. activities 1
 - b. (b), 1(k), 1(l), 1(m), 1(u),
 - c. activity 4,
 - d. activity 7,
 - e. activity 12,
 - f. activity 14,
 - g. activity 15,
 - h. activity 20,
 - i. activity 25, and

- j. or any relevant expansions,
- 4. Activities in terms of Regulation 387;
 - a. activities 1(e), 1(h), 1(j), and
 - b. activity 2. (details of these activities can be reviewed in the MDEDET application in Appendix A.

4.12 CONFIRMATION OF IAP CONSULTATION AND AGREEMENT ON POTENTIAL IMPACTS

Potential impacts that were identified during the scoping process, in consultation with authorities, IAPs, and specialists, are discussed under environmental component headings in this section. These discussions should be read with the corresponding descriptions of the baseline environment in Section 2 of the scoping report.

For projects with sufficient information at the scoping stage, preliminary impact assessments are provided. In this scoping report a preliminary assessment is not possible. Before the assessment can be meaningfully conducted there is a need for additional information from a number of investigations.

The potential impacts associated with all the phases (construction, operations, decommissioning and closure) have been conceptually identified and described and reference has been made to the studies/investigations that are required to provide the necessary additional information.

4.13 POTENTIAL CULTURAL ENVIRONMENT IMPACTS

A list and description of potential impacts identified with the cultural environment is provided below as part of archaeological and heritage impacts.

4.13.1 ARCHAEOLOGICAL RESOURCES

4.13.1.1 Issue: Loss of heritage and cultural resources

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

Discussion

Heritage resources are expected to occur in and around the project area. The additional work required to address this issue is described in section 4.13 of the scoping report.

4.13.1.2 Issue: Loss of paleontological resources

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

Discussion

Paleontological resources are expected to occur in and around the project area. The impact of the proposed Hoogland project on these resources will need to be assessed in the EIA/EMP amendment report. The additional work required to address this issue is described in section 4.13 of the scoping report.

4.14 POTENTIAL SOCIO-ECONOMIC ENVIRONMENT IMPACTS

4.14.1 ISSUE: POSITIVE AND NEGATIVE SOCIO-ECONOMIC IMPACTS

The baseline study used for this study was based on the 1996-2000 census data. This is regarded as dated and will need to be updated. It is proposed that Ms Nicky Fourie carry out the specialist investigation are required. The assessment and detailed management measures will be provided in the EIA/EMP report by Metago and the technical project team.

4.15 LAND USE

4.15.1 ISSUE: LOSS OF CURRENT LAND USES

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.15.1.1 Discussion

The current land uses on site are described in Section 2.4.1 of this report. The excavation of open pits, the establishment of an overburden dump, construction of haul roads and access roads and the establishment of the necessary supporting infrastructure will impact on the current land uses.

The proposed development of an open cast mining operation and the re-establishment of a wilderness area (i.e. with pristine vegetation and hydrology) after closure is likely to conflict with the objectives of a private nature reserve and its buffers zone. As part of the ongoing stakeholder engagement process, the project team should hold discussions with Mpumalanga Parks and Tourism Agency, to ensure that the proposed and final land use is in line with that of a private nature reserve and its buffer zone.

The additional work required to address this issue is described in Section 7.1.5 of the scoping report.

4.15.2 ISSUE: INCREASE IN TRAFFIC AND ROAD DISTURBANCE

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.15.2.1 Discussion

Transport routes for the project area discussed in Section 4.4. In this regard, the proposed project is likely to have little impact through the use of public roads for project-related activities, as these roads are paved and majority of the traffic using these roads will be driving to the Everest platinum mine (i.e. this traffic impact has been assessed in the previous EIA/EMP). The increase in traffic entering and leaving the project area could place increased pressure on the existing road network depending on the number of trips required. In addition, the gravel road that is proposed for access to the site crosses through the project area and is shared by the farmers to access their farms to the east of the project site. In addition to the access road a haul road, is planned to the north of the site and to the west of the neighbouring farms. The additional work required to address this issue is described in Section 7.1.6 of the scoping report.

4.15.3 ISSUE: DAMAGE FROM BLASTING

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.15.3.1 Discussion

When an open pit mine is proposed, communities surrounding the proposed project area raise the concern of potential damage to people, livestock, houses and other structures (e.g. boreholes) from blasting. This damage can occur through vibrations (ground and air), air blasts and fly rock. In the case of vibrations, the factors that contribute to this potential impact are:

- the building/structure integrity (including underlying soils and foundations) of the houses and other structures;
- the distance between the houses/structures and the blasting zone; and
- the magnitude of the blast vibrations which are a function of the blast design.

In the case of fly rock, the factors that contribute to this potential impact are:

- the distance between the blasting zone and people/livestock/structures;
- the blast design;
- fly rock containment measures; and
- the blast management procedures.

After closure of the relevant mine sections, there may still be some positive impacts through maintenance and aftercare activities and the fact that the mine would have contributed to a greater economic critical mass, skills, and wealth that can be used in other economic opportunities.

The following **negative impacts** are expected during the construction and operational phases:

- Increase in traffic on the local roads
- Potential for damage of occupied houses and other structures during blasting at the portals and underground
- Influx of people into the area in search of work, leading to informal settlements and associated problems of crime, disease, and social disruption
- Increased pressure on housing and related services (water, power, sanitation, rubbish removal, schooling)
- Reduced quality of life for surrounding landowners.

The most significant impact after closure will be the loss of income with respect to the local, regional and national economies.

The additional work required to address all of these issues is described in section 7.1.17 of the scoping report.

4.17 POTENTIAL BIOPHYSICAL ENVIRONMENT IMPACTS

A list and description of potential impacts identified with the biophysical environment including but not limited to impacts on: flora, fauna, water resources, air and noise etc; is provided below.

4.17.1 GEOLOGY

4.17.1.1 Issue: Loss and sterilisation of mineral resources

4.17.2 ISSUE: LOSS OF MINERAL RESOURCES

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.17.2.1 Discussion

The impact of the project on the target ore body and the overburden and rock above this ore body is necessary for the project to continue and is unavoidable. No specialist investigations are required. As part of the EIA/EMP amendment report, management measures will be designed in a manner that the

4.17.7 FAUNA AND FLORA (NATURAL PLANT AND ANIMAL LIFE)

4.17.8 ISSUE: LOSS OF NATURAL VEGETATION AND NATURALLY OCCURRING ANIMALS

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.17.8.1 Discussion

The current baseline environment on the site at present is a pristine, undisturbed area that used for grazing. By all intents and purposes the baseline vegetation, aquatic and hydrology studies provide factual evidence that the nature of the proposed project site is diverse and pristine. The grazing activity has had a limited impact on the flora of the area, and the natural flora does not appear to be degraded or infested by alien species. The activities associated with the project could cause a loss and degradation of natural vegetation in both the terrestrial and aquatic habitats. This could lead to habitat fragmentation, degradation and loss altogether in some cases. It follows that the habitats and movement of animal life (vertebrates and invertebrates) may also be impacted negatively. Together, these impacts may cause a reduction in ecosystem functionality. The additional work required to address this issue is described in Section 7.1.8 of the scoping report.

4.17.9 HYDROLOGY (SURFACE WATER)

4.17.10 ISSUE: LOSS OF NATURAL VEGETATION AND NATURALLY OCCURRING ANIMALS

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.17.10.1 Discussion

The current baseline environment on the site at present is a pristine, undisturbed area that used for grazing. By all intents and purposes the baseline vegetation, aquatic and hydrology studies provide factual evidence that the nature of the proposed project site is diverse and pristine. The grazing activity has had a limited impact on the flora of the area, and the natural flora does not appear to be degraded or infested by alien species. The activities associated with the project could cause a loss and degradation of natural vegetation in both the terrestrial and aquatic habitats. This could lead to habitat fragmentation, degradation and loss altogether in some cases. It follows that the habitats and movement of animal life (vertebrates and invertebrates) may also be impacted negatively. Together, these impacts may cause a reduction in ecosystem functionality. The additional work required to address this issue is described in Section 7.1.9 of the scoping report.

4.17.11 GROUNDWATER

4.17.12 ISSUE: LOWERING GROUNDWATER LEVELS

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.17.12.1 Discussion

Groundwater levels could be reduced in the Hoogland project area if pit dewatering is required during operations. This impact could affect the people/livestock and ecosystems reliant on groundwater. Assessing the significance of this impact requires input from the specialist investigation included in Section 7.1.5 of the scoping report.

4.17.13 CONTAMINATION OF GROUNDWATER

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.17.13.1 Discussion

In the Hoogland area, groundwater could become contaminated from number of sources as detailed in Section 7.1.10. The additional work required to address this issue is included in Section 7.1.5 of the scoping report.

4.17.14 AIR QUALITY

4.17.15 ISSUE: DUST GENERATION AND INCREASE IN AIR POLLUTION

PHASE IN WHICH IMPACT(S) MAY OCCUR

Construction	Operational	Decommissioning	Closure

4.17.15.1 Discussion

Open cast mining, vehicle entrainment, storage of overburden and topsoil on stockpiles, clearing of areas for construction and vehicles driving on unpaved roads can have a negative impact on ambient air quality, ecosystem functionality and surrounding land uses. In addition to this these vehicles will also release exhaust fumes. The Hoogland project-related activities are expected to result in the generation of dust and exhaust fumes. These pollutants could in turn have a negative impact on ambient air quality and on the residents and land uses downwind of the project area. These impacts could potentially result in health impacts for nearby farmers and their staff if left unmanaged. The additional work required to address this issue is described in Section 7.1.11 of the scoping report.

4.17.16 NOISE**4.17.17 ISSUE: INCREASE IN DISTURBING NOISE****PHASE IN WHICH IMPACT(S) MAY OCCUR**

Construction	Operational	Decommissioning	Closure

4.17.17.1 Discussion

There are a number of noise pollution sources associated with open cast mining. These sources can potentially have a negative impact on ambient noise levels and surrounding communities/land uses. The noise sources associated with this form of mining include; construction activities, pit excavation, blasting, vehicle movement, and backfilling of the pit. The additional work required to address this issue is described in Section 7.1.12 of the scoping report.

4.17.18 VISUAL ASPECTS**4.17.19 ISSUE: NEGATIVE VISUAL IMPACTS****PHASE IN WHICH IMPACT(S) MAY OCCUR**

Construction	Operational	Decommissioning	Closure

4.17.19.1 Discussion

The proposed project development and activities associated with the Hoogland project will be visible to the residents in the immediate vicinity of the project and to those people who occupy the higher ground to the south of the site. The negative visual impacts will result from all phases of the mining operation (i.e. including at closure. The Hoogland area and surrounds is characterised by deeply incised valleys and mountains and this leads to the area having a high scenic value. It is therefore expected that this mining project, in a relatively, undisturbed area is expected to have a negative visual impact. The extent of the negative visual impact on this scenic environment will depend on the project and environmental management alternatives. The additional work required to address this issue is described in 7.1.13 of the scoping report.

4.18 REHABILITATION**4.18.1 ISSUE: LAND USE POTENTIAL AT CLOSURE****PHASE IN WHICH IMPACT(S) MAY OCCUR**

Construction	Operational	Decommissioning	Closure

The final rehabilitated landscape will be that of a pristine wilderness. The overburden will be used for backfilling of the pits and the storm water control structures and this is integral to returning the site to pristine wilderness potential. As will the re-establishment of the diversity of vegetation and invertebrates.

The terms of reference for the specialist investigation are included in section 7.1 of the scoping report. The findings, impact assessment and associated management measures will be included in the EIA/EMP report.

4.19 POTENTIAL CUMULATIVE IMPACTS

This section provides a description of potential cumulative impacts that the proposed operation may contribute to considering other identified land uses which may have potential environmental linkages to the land concerned.

All identified impacts in the preceding sections will be considered in a cumulative manner such that the impacts of the current AQSA mining activities and those potentially associated with the development of the open cast pits, and associated infrastructure areas will be assessed holistically.

5 PROJECT ALTERNATIVES

This section describes land use or development alternatives, alternative means of carrying out the operation, and the consequences of not proceeding with the proposed operation

The main project alternatives to be considered include:

- The “no-go” alternative
- Alternative land use
- Project infrastructure alternatives.

5.1 LAND USE ALTERNATIVES

In accordance with the current land uses in the vicinity of the project sites (see Section 2.4.1) the site could, as an alternative to the project, be used for wilderness, game farming, ecotourism, general community activities or exploration/mining. When considering the post rehabilitation land use alternatives, the options considered to date is rehabilitation back to wilderness.

5.2 PROJECT ALTERNATIVES

Alternatives are being considered for certain components of the project. This alternative selection process cannot be completed without more detailed input from certain specialist investigations that have been described in Section 7 of the scoping report. As such, the selection process will be completed during the next phase of the EIA. For each component a set of selection criteria will be used to optimise environmental, technical and economic factors. The selection criteria for the various components are outlined below.

5.2.1 ALTERNATIVE MINING METHODS

AQPSA is proposing an open cast mining method to access this ore body. To do this approximately 5.5million tonnes of overburden will need to be removed. A logical question would be why not mine this ore using the underground method either using a decline as is used in the valley section of the mine or by using a vertical shaft. The reason for the selection of the open cast method is that it is a safer mining method when the ore is at such a shallow depth and it allows for quicker access to the ore body to be mined.

5.2.2 TRANSPORT OPTIONS

Access route at Hoogland

The proposed access route to the Hoogland site is the existing gravel farm road leading off the Provincial paved road. This route provides the shortest distance from the tarred road to the proposed site and will predominantly be used for smaller vehicles transporting staff and management. The other alternative is to use the same haul road as the trucks between the crusher and the open cast pits or to alternatively have a road for light vehicles next to the haul road. The EIA will consider the use of one or both of these roads by the project. Some form of upgrading of the roads will probably be required. Apart from upgrading existing gravel roads, no alternative options for accessing the site are being considered.

Transport mechanisms at Hoogland

In terms of transport mechanisms, the following options were identified for the transportation of materials to and from site: road and overland conveyor. In terms of transporting materials, other than ore, the only feasible option at this stage is road transport in terms of transporting ore to the crusher, the options being considered at this stage include: road or conveyor

5.2.3 ALTERNATIVE SEWAGE SLUDGE MANAGEMENT OPTIONS

The options being considered include pumping of septic tanks at the Hoogland site and transporting this off site to a sewerage treatment works in Mashishing/Lydenburg or removing this pumped sludge to the sewerage system at the Everest Platinum Mine and using the sludge from this operation for use in vegetation establishment and land rehabilitation. It should be noted that the use of sludge for rehabilitation purposes will depend on the classification of the sludge and whether its use for rehabilitation can be licensed.

5.3 LAND DEVELOPMENTS WHICH MAY BE AFFECTED BY THE PROPOSED PROJECT

This section will be addressed in the EIA and EMP following feedback from the communities.

5.4 IAP PROPOSALS TO ADJUST PROJECT PLAN

This section will be addressed in the EIA and EMP following feedback from the communities.

5.5 THE “NO-GO” OPTION

The assessment of this option requires a comparison between the options of proceeding with the project with that of not proceeding with the project. The assessment of this option therefore requires input from the investigations described in Section 7 so that the full extent of environmental, social and economic considerations can be taken into account.

5.6 PROJECT PLAN

A description of the most appropriate procedure to plan and develop the proposed mining operation is provided in section 4.1.

5.6.1 AVOIDANCE OF POTENTIAL IMPACTS

This section provides information on the applicant's response to the findings of the application process and the possible options to adjust the mine project proposal to avoid potential impacts identified in the consultation process.

The overall project team, which consists of AQSA and other engineering companies, and Metago aim to develop the project infrastructure layout and plan in a manner which will prevent impacts to the socio-economic, cultural and biophysical environment. Should impacts be unavoidable, the emphasis will be on impact minimisation and mitigation. The input provided by the relevant EIA specialists will be used to inform any required changes to the project plan during the EIA phase of the project.

5.6.2 PROJECT PLAN TO AVOID POTENTIAL IMPACTS

This section describes the most appropriate procedure to plan and develop the proposed mining operation with due consideration of the issues raised in the consultation process

As indicated above, the overall project team aims to develop the project infrastructure layout and plan in a manner which will prevent impacts to the socio-economic, cultural and biophysical environment. Should impacts be unavoidable, the emphasis will be on impact minimisation and mitigation. The input provided by the relevant EIA specialists will be used to inform any required changes to the project plan during the EIA phase of the project.

6 DESCRIPTION OF THE PROCESS OF ENGAGEMENT OF IAPS, INCLUDING THEIR VIEWS AND CONCERNS

6.1 INFORMATION SHARING

This section describes the information provided to the community, landowners and IAPs to inform them in sufficient detail of what the mining operation will entail on the land, in order for them to assess what impact the operation will have on them or the use of the land.

6.1.1 BACKGROUND INFORMATION DOCUMENT (BID)

A BID was compiled and distributed by post, e-mail and fax to all IAPs and authorities on the project's public involvement database. This database was developed using the databases from previous AQSA projects, supplemented with a title deeds search and with information on IAP provided in the scoping public and focused meetings. The purpose of the BID is to inform IAPs and authorities about the proposed project, the environmental assessment process, possible environmental impacts, and means of providing input into the environmental assessment process. Attached to the BID is a registration and response form, which provides IAPs with an opportunity to submit their names, contact details and comments on the project. The BID is provided in Appendix C.

6.1.2 NOTIFICATION

The relevant landowners were informed of the proposed project via email, fax and hand delivered letters. Proof of these notifications is provided in Appendix C.

Site notices in English and Setswana were placed at key conspicuous positions in and around the proposed project area. Block advertisements were placed in English and Setswana in the Daily Sun and Rustenburg Herald newspapers (dates to be added). Photographs of the site notices and copies of the newspaper advertisements are provided in Appendix C.

6.1.3 SCOPING MEETINGS

Information-sharing scoping meetings were held. The purpose of the meetings was to provide IAPs with an outline of the project and environmental assessment process, identify potential issues to be investigated further, provide input into the terms of reference for specialist studies and agree on the way forward. Minutes of the meetings are included in Appendix C.

The following scoping meetings were held early in July 2010 (add exact dates and venues to each):

- Focussed meeting with the immediate landowners
- Focussed meeting with Ba Phetla;

- Public Meeting for interested and affected parties;
- Focussed meeting with the kiwi and surrounding communities.
- An authorities meeting and site visit.

At these meetings a presentation was given which provided basic information on the proposed project. At this early stage in the project, limited information is available regarding the project description as the project is still in the design phase. These meetings were therefore focussed on:

- Informing IAPs about the proposed project
- Informing IAPs about the stakeholder engagement process and how IAPs can have input into the process
- Providing information about the baseline environment and obtaining agreement thereon
- Providing information about the potential impacts of the project and obtaining agreement thereon
- Providing an opportunity for IAPs to raise issues and concerns. These issues and concerns have been clearly documented and used to inform the Plan of Study for the EIA Phase.

Meeting attendance registers, minutes, the meeting presentation and the issues and concerns report is provided in Appendix C.

6.1.4 REVIEW OF SCOPING REPORT

Copies of the scoping report will be made available for public review (14 April – 16 May 2011) at venues agreed to during the information-sharing scoping meetings. Copies of the updated scoping report are being made available for public review at the following venues:

- Hoogland project area:
 - Everest Platinum Mine (C/o The Receptionist);
 - Phetla CPA C/o Paul Rachidi (C/o The CPA Secretary);
 - Kiwi Primary School C/o Peggy Ngutshane (School Principal);
 - Steenkampsberge Boereverening (C/o Dawie Jacobs);
 - Lydenburg Public Library;
 - De Berg Conservancy (C/o Chris Davel);
- Gauteng
 - Library at Metago's offices in Johannesburg; and
 - Library at Metago's offices in Pretoria.

Electronic copies of the report will be made available to IAPs on request (electronically on CD). A summary of the scoping report (in English and SePedi) will be compiled and distributed to all IAPs registered on the project's public involvement database by post and/or e-mail. IAPs will be notified of the availability of the scoping report/summary for review as well as review periods via newsletter and sms

(short text message). IAPs will be given 40 days to review the scoping report and submit comments in writing to Metago.

6.2 IAPs CONSULTED DURING SCOPING PHASE

This section discusses which of the identified communities, landowners or lawful occupiers and other IAPs were in fact consulted during the Scoping Phase.

All IAPs registered on the project database have been consulted and have received:

- The BID
- Invitations to the focussed or public meetings
- The opportunity to provide input and raise issues and concerns via written comments directed to Metago, or at the relevant focussed or public meetings.

All full list of IAPs consulted is provided in Appendix B.

6.3 IAP VIEWS ON EXISTING ENVIRONMENT

All views, issues and concerns raised throughout the Scoping Phase with regard to the existing cultural, socio-economic or biophysical environment have been captured into the issues and concerns report provided in Appendix D.

6.4 IAP VIEWS ON POTENTIAL IMPACTS

All views, issues and concerns raised throughout the Scoping Phase on how the existing cultural, socio-economic or biophysical environment could potentially be impacted upon by the proposed mining operation have been captured into the issues and concerns report provided in

6.5 OTHER IAP CONCERNS

All views, issues and concerns raised throughout the Scoping Phase have been captured into the issues and concerns report provided in Appendix D.

6.6 MEETING MINUTES AND RECORDS OF CONSULTATIONS

Meeting attendance registers, minutes, the meeting presentation and the issues and concerns report is provided in Appendix C.

6.7 IAP OBJECTIONS

All views, issues, concerns and objections raised throughout the Scoping Phase have been captured into the issues and concerns report provided in Appendix D.

7 FURTHER INVESTIGATIONS AND EIA PLAN OF STUDY

This section describes the nature and extent of further investigations required in the Environmental Impact Assessment Report, including any specialist reports that may be required, and sets out the proposed approach to the EIA/EMP phase.

7.1 FURTHER INVESTIGATIONS

The proposed terms of reference for further investigations required for the completion of the EIA study are discussed below. The results of these studies will be collated into a combined EIA/EMP report.

7.1.1 GEOLOGY

It is proposed that no further investigations are required. The assessment and detailed management measures for both sites will be provided in the EIA/EMP report by Metago and the technical project team.

7.1.2 TOPOGRAPHY

It is proposed that no specialist investigations are required. The assessment and detailed management measures will be provided in the EIA/EMP amendment report by Metago and the AQPSA technical project team in consultation with the ecologists and the land use specialist.

7.1.3 SOIL AND LAND CAPABILITY

It is proposed that a site specific soils survey be carried out by the Agricultural Research Council: Institute for Soil, Climate and Water for the Hoogland project area. The investigation will have the following objectives:

- to survey the areas that are required for infrastructure and mining;
- to classify the different soil types and produce a soils distribution and land capability map;
- to confirm the agricultural potential of the soil units;
- to analyse properties and define characteristics of the soil such as nutrient content and chemistry, capability to support ecosystem functionality; and
- to have input, together with Metago and the technical project team, into management measures for the EIA/EMP report.

7.1.4 LAND USE

7.1.5 LAND USE - LOSS OF CURRENT LAND USES

The impacts of the proposed activities on current land use will be assessed by Metago and management measures provided in the EIA/EMP report. The alternatives under consideration are detailed in section 5.1 of the scoping report.

7.1.6 LAND USE - ROAD DISTURBANCE AND TRAFFIC

The impacts of the proposed haul and access road will be assessed by Metago and management measures provided in the EIA/EMP report. The alternatives under consideration are detailed in section 5 of the scoping report.

7.1.7 LAND USE - DAMAGE FROM BLASTING

The potential for blast related damage and required management measures have been well documented. It is proposed that Metago with input from the technical mining team assess the following qualitative objectives:

- to assess the fly rock impact zones and boundaries;
- to assess vibration impact zones and boundaries; and
- to have input, into project alternatives and blast management measures going forward.

7.1.8 NATURAL VEGETATION AND ANIMAL LIFE (FLORA AND FAUNA)

It is proposed that detailed (terrestrial and aquatic flora and fauna) investigations be conducted for the Hoogland site by Ecorex during the respective growing, flowering and breeding seasons) autumn and summer months dry/wet season. The investigation has the following objectives:

- to perform desktop and field investigations to identify and map different habitats in the proposed Hoogland area;
- to assign species to each habitat through various trapping and sampling methods;
- to describe vegetation communities/habitats in the proposed project area (including structure, dominant plant composition and condition);
- to rank each habitat type based on conservation importance and ecological sensitivity;
- to assess the ecological state of the aquatic ecosystems in the area;
- to collect reference data against which future changes may be compared;
- to identify potential impacts on ecology; and
- to have input, together with Metago and the technical project team, into project alternatives and ecology management measures going forward.

7.1.9 HYDROLOGY (SURFACE WATER)

It is proposed that a detailed investigation be conducted by Metago for the Hoogland area. This study will address both quantity and quality issues. The investigation has the following objectives:

- to source and provide a description of climatic data to be used in hydrological calculations including rainfall, temperatures, evaporation and typical extreme weather conditions (this data will be sourced from nearby weather stations);
- to indicate the presence of water courses, streams, rivers, dams and pans in the area;
- to determine catchment boundaries;
- to determine the mean annual runoff from the project site;
- to determine flood peaks and volumes for recurrence intervals of 1:20, 1:50 and 1:100 years and the regional maximum flood (RMF);
- to determine the drainage density of areas to be disturbed;
- to develop a site-wide climatic water balance covering the average dry seasons, average wet seasons and average annual;
- to identify pollution sources;
- to assess the impacts on water users and the ecosystem functionality; and
- to have input, together with Metago, other specialists and the technical project team, into project alternatives and management measures going forward including the conceptual design of storm water controls.

7.1.10 GROUNDWATER

It is proposed that a detailed investigation be conducted by Groundwater Consulting Services (GCS). The investigation will have the following objectives:

- to undertake a detailed review of existing available databases;
- to provide baseline water depths and qualities (surface water and groundwater) in and around the site through a hydrocensus;
- to identify groundwater (and surface water) users in and downstream of the project area;
- to identify fractures, faults and other relevant geological features that may be relevant to positioning infrastructure and to assessing the impacts of the various pollution sources;
- to model groundwater flow within the local aquifers;
- to model the impacts from pit dewatering;
- to assess the impacts on ground water users and the ecosystem functionality; and
- to have input, together with Metago, other specialists and AQPSA technical project team, into project alternatives and the management measures going forward.

7.1.11 AIR QUALITY

It is proposed that an air quality assessment be conducted for the Hoogland area by Airshed Planning Professionals. The investigation will have the following objectives:

- to qualify the ambient air quality baseline;
- to quantify all proposed emission sources in an emissions inventory;
- to determine the relevant meteorological conditions in and adjacent to the project area including wind speeds and direction;
- to model the spatial dispersion of emissions to air;
- to assess the potential incremental and cumulative off-site impacts of the emissions; and
- to have input, together with Metago, other specialists and the technical project team, into project alternatives and the management measures going forward.

7.1.12 NOISE

It is proposed that Jongens Keet Associates carry out the detailed investigation for the Hoogland. The investigation has the following objectives:

- to quantify the pre-development ambient noise climate for day and night;
- to identify noise-sensitive receptors;
- to model operational noise levels during the day and night;
- to estimate the cumulative impact of existing and possible future project noise levels;
- to compare these estimated impacts to relevant standards; and
- to have input, together with Metago, other specialists and the technical project team, into project alternatives and the management measures going forward.

7.1.13 VISUAL ASPECTS

It is recommended that a visual impact assessment is undertaken by Newton Landscape Architects for the Hoogland project area. The investigation has the following objectives:

- to conduct a field survey of the proposed project area and photograph sensitive views;
- to provide a professional assessment of the potential visual impacts; and
- to have input, together with Metago, other specialists and the technical project team, into project alternatives and the management measures going forward.

7.1.14 ARCHAEOLOGICAL, CULTURAL AND HERITAGE RESOURCES

Metago proposes that Dr Julius Pistorius undertakes this heritage assessment of the Hoogland project area. The investigation will have the following objectives:

- to identify and map (through literature review and field work) all heritage resources in the proposed project area;

- to assess the significance of the identified resources;
- to assess the impact of the proposed project on the heritage resources;
- to have input, together with Metago and the technical project team into project alternatives and heritage resources management measures going forward.

7.1.15 PALEONTOLOGICAL RESOURCES

Metago proposes that Dr Rubridge undertakes this palaeontological assessment of the Hoogland project area. The investigation will have the following objectives:

- to identify and map (through literature review and field work) all heritage resources in the proposed project area;
- to assess the significance of the identified resources;
- to assess the impact of the proposed project on the paleontological resources;
- to have input, together with Metago and the technical project team into project alternatives and paleontological resources management measures going forward.

7.1.16 TRANSPORT SYSTEMS

It is proposed that further investigations are required for the haul road and this will be assessed by Metago and the assessment and detailed management measures will be provided in the EIA/EMP report by Metago.

7.1.17 SOCIO-ECONOMIC ISSUES

It is proposed that a specialist investigation is required to update the 1996-2000 information. The assessment and detailed management measures will be provided in the EIA/EMP report by Metago and the technical project team.

7.1.18 CHARACTERISATION OF WASTE ROCK

In line with MPRDA Regulation 73. This will include:

- Physical characteristics
- Chemical characteristics
- The waste rock dump will be classified in terms of safety and environmental risks.

7.1.19 CHARACTERISATION OF SEWAGE SLUDGE

Sewage sludge will be classified using the DWA Permissible Use and Disposal of Sewage Sludge Guidelines. Metago will use the information derived from the classification to determine a suitable use or disposal option for the sludge.

7.2 METHODOLOGY FOR THE ASSESSMENT OF ENVIRONMENTAL ISSUES

The proposed method for the assessment of environmental issues is set out in Table 7-1 below. This assessment methodology enables the assessment of environmental issues including: cumulative impacts, the severity of impacts (including the nature of impacts and the degree to which impacts may cause irreplaceable loss of resources), the extent of the impacts, the duration and reversibility of impacts, the probability of the impact occurring, and the degree to which the impacts can be mitigated.

TABLE 7-1 CRITERIA FOR ASSESSING IMPACTS

Note: Part A provides the definition for determining impact consequence (combining severity, spatial scale and duration) and impact significance (the overall rating of the impact). Impact consequence and significance are determined from Part B and C. The interpretation of the impact significance is given in Part D.

PART A: DEFINITION AND CRITERIA*					
Definition of SIGNIFICANCE		Significance = consequence x probability			
Definition of CONSEQUENCE		Consequence is a function of severity, spatial extent and duration			
Criteria for ranking of the SEVERITY of environmental impacts	H	Substantial deterioration (death, illness or injury). Recommended level will often be violated. Vigorous community action.			
	M	Moderate/ measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints.			
	L	Minor deterioration (nuisance or minor deterioration). Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.			
	L+	Minor improvement. Change not measurable/ will remain in the current range. Recommended level will never be violated. Sporadic complaints.			
	M+	Moderate improvement. Will be within or better than the recommended level. No observed reaction.			
	H+	Substantial improvement. Will be within or better than the recommended level. Favourable publicity.			
Criteria for ranking the DURATION of impacts	L	Quickly reversible. Less than the project life. Short term			
	M	Reversible over time. Life of the project. Medium term			
	H	Permanent. Beyond closure. Long term.			
Criteria for ranking the SPATIAL SCALE of impacts	L	Localised - Within the site boundary.			
	M	Fairly widespread – Beyond the site boundary. Local			
	H	Widespread – Far beyond site boundary. Regional/ national			
PART B: DETERMINING CONSEQUENCE					
SEVERITY = L					
DURATION	Long term	H	Medium	Medium	Medium
	Medium term	M	Low	Low	Medium
	Short term	L	Low	Low	Medium
SEVERITY = M					
DURATION	Long term	H	Medium	High	High
	Medium term	M	Medium	Medium	High
	Short term	L	Low	Medium	Medium
SEVERITY = H					
DURATION	Long term	H	High	High	High
	Medium term	M	Medium	Medium	High
	Short term	L	Medium	Medium	High
			L	M	H
			Localised - Within site boundary - Site	Fairly widespread - Beyond site boundary - Local	Widespread - Far beyond site boundary - Regional/ national

SPATIAL SCALE					
PART C: DETERMINING SIGNIFICANCE					
PROBABILITY (of exposure to impacts)	Definite/ Continuous	H	Medium	Medium	High
	Possible/ frequent	M	Medium	Medium	High
	Unlikely/ seldom	L	Low	Low	Medium
			L	M	H
CONSEQUENCE					

PART D: INTERPRETATION OF SIGNIFICANCE	
Significance	Decision guideline
High	It would influence the decision regardless of any possible mitigation.
Medium	It should have an influence on the decision unless it is mitigated.
Low	It will not have an influence on the decision.

*H = high, M= medium and L= low and + denotes a positive impact.

7.3 METHODOLOGY FOR THE ASSESSMENT OF PROJECT ALTERNATIVES

7.3.1 ASSESSMENT OF THE “NO-GO OPTION”

The assessment of the implications of the “No-Go option” will require a high level comparison between the existing situation without the project and the possible future situation with the project, as assessed in the EIA/EMP report. This comparison will take existing and future impacts into account, including both positive and negative impacts. Additional discussion is included in Section 5 of the scoping report

7.3.2 ASSESSMENT OF PROJECT ALTERNATIVES

The realistic alternatives and associated assessment criteria for choosing between these alternatives have been discussed in section 5 of the scoping report. The proposed methodology for the assessment of these alternatives is a relative comparison that also applies the assessment method described above to each of the listed assessment criteria, where possible.

7.4 ENGINEERING DESIGN

The mine residue disposal facilities will be designed by an appropriately qualified professional engineer in accordance with the requirements of Regulation 73 of the Mineral and Petroleum Resources Development Act, 28 of 2002, and Regulation 704 of the National Water Act, 108 of 1998.

7.5 CLOSURE COST ESTIMATE

A closure cost estimate will be calculated for the proposed Hoogland project and will be undertaken by Metago Environmental Engineers (PTY) Ltd.

7.6 WAY FORWARD FOR SCOPING

The way forward for the remainder of the scoping phase is as follows:

- Distribute the scoping report and a summary thereof for review by the IAPs, the DMR and other regulatory authorities
- Receive comments from IAPs and other regulatory authorities
- Following the IAP review process, five copies of the scoping report (with comments) will be forwarded by Metago to DEDET in line with NEMA. It is then expected that the scoping report will be distributed internally by DEDET for review and comment
- Submit the scoping report (with comments) to DEDET
- Receive comments from DEDET.

7.7 PLAN OF STUDY FOR THE EIA PHASE

7.7.1 EIA PHASE OBJECTIVES

The main objectives of the EIA phase are to:

- Assess project alternatives
- Assess the potential environmental and social impacts of the project
- Identify and describe procedures and measures that will mitigate potential negative impacts and enhance potential positive impacts
- Liaise with IAPs including relevant government departments on issues relating to the proposed development to ensure compliance with existing guidelines and regulations
- Undertake consultations with IAPs and provide them with an opportunity to review and comment on the outcomes of the environmental assessment process and acceptability of mitigation measures
- Develop an environmental management plan and a conceptual closure/decommissioning plan
- Provide measures for ongoing monitoring (including environmental audits) to ensure that the project plan and proposed mitigation measures are implemented as outlined in the detailed EIA.

7.7.2 EIA PROJECT TEAM

The proposed EIA project team is outlined in Table 7-2 and is similar to the team used for the scoping phase with the inclusion of additional specialists.

TABLE 7-2: PROPOSED EIA TEAM

Team	Name	Designation	Tasks and roles	Company
Project management	Hylton Allison	Project manager	Management of the assessment process, stakeholder engagement and report compilation.	Metago Environmental Engineers (Pty) Ltd
	Charlene Mureverwi	Project administrators		
	Stella Moeketse			
	Natasha Daly			
	Alex Pheiffer	Project reviewer	Report and process review	
Specialist Team	Luke Wiles	Surface water	Surface Water	Metago Environmental Engineers (Pty) Ltd

Team	Name	Designation	Tasks and roles	Company
	Duncan McKenzie	Vegetation study	Ecological study	Ecorex
	Anthony Emery	Habitat mapping		
	Dr Robert Palmer	Aquatic fauna		
	Warren McClelland	Terrestrial vertebrate fauna		
	Peter Hawkes	Terrestrial invertebrate fauna		
	Garry Patterson	Soil scientist	Soil and land capability study	Agricultural Research Council - Institute of Soil Climate and Water
	Reneé von Gruenewaldt	Air quality specialists	Input into understanding the climate in the valley	Airshed Planning Professionals
	Dr Julius Pistorius	Heritage consultant	Heritage impact assessment	Julius Pistorius CC
	Derek Cosijn	Noise specialist	Noise study	Jongens Keet Associates/Calyx Environmental
	Graham Young	Visual specialist	Visual study	Newton Landscape Architects
Pieter Labuschagne and Johannes van der Walt	Groundwater specialist	Groundwater study	Groundwater Consulting Services	

7.7.3 EIA/EMP PHASE ACTIVITIES

An overview of the EIA/EMP phase and corresponding activities are outlined in Table 7-3.

TABLE 7-3 EIA/EMP ACTIVITIES

Objectives	Corresponding activities
<i>Detailed specialist investigations (October 2010 to May 2011)</i>	
<ul style="list-style-type: none"> Describe the affected environment. Define potential impacts. Give management and monitoring recommendations. 	<ul style="list-style-type: none"> Investigations by technical project team and appointed specialists (see Section 7.7.2) of issues identified during the scoping stage including investigations into alternatives.
<i>EIA/EMP phase (May 2010 to August 2011)</i>	
<ul style="list-style-type: none"> Assessment of potential environmental impacts. Design requirements and management and mitigation measures. Receive feedback on application 	<ul style="list-style-type: none"> Compilation of EIA/EMP amendment report. Distribute EIA/EMP report to IAPs and other regulatory authorities for review (June 2011). Public feedback meetings with IAPs (if required) (July 2011). Record comments (July 2011). Forward EIA/EMP report including IAP comments to MDEDET for review (August 2011). Forward IAP comments to DMR (July 2011). Circulate record of decisions to all registered IAPs registered.

7.7.4 STAGES OF CONSULTATION WITH THE COMPETENT AUTHORITY IN EIA PHASE

Proposed consultation meetings for the EIA phase include:

- a site visit and meeting with the MDEDET and DMR (if requested); and
- a general authorities meeting at the end of the EIA phase to present the main findings of the EIA prior to submission of the EIA/EMP report. The authorities that will be invited to attend this meeting include: DWA, SAHRA and/or DAFF, DRDLA, Ehlanzeni District Municipality, Thaba Chewu Local Municipality.

7.7.5 PUBLIC INVOLVEMENT PROCESS IN EIA PHASE

The proposed public involvement process can be separated into focussed and general involvement. Each of these is described below,

7.7.5.1 Focussed involvement

As part of the various investigations that form part of the EIA tasks (described in Section 7.1 above) focussed meetings with certain IAPs will be held, as required. These meetings will be arranged and facilitated by Metago and/or its appointed specialists.

7.7.5.2 General involvement

As with the scoping report, full copies of the EIA/EMP report will be distributed to the agreed venues and summaries will be distributed to registered IAPs (see database in Appendix B). Full copies of the report will also be provided electronically on request. The IAPs will have 40 days to review the report and submit comments to Metago.

At the end of the review period a public feedback meeting will be arranged (if required). The purpose of this meeting will be as follows:

- to provide IAPs with a final chance to submit comments on the EIA/EMP report; and
- to provide IAPs with an opportunity to discuss the outcomes of the EIA/EMP report.

All comments received from IAPs in the review period will be forwarded to the DMR and included with the final report that is submitted to MDEDET.

Once the DMR and MDEDET have issued their respective records of decisions, the IAPs will be notified by fax, e-mail, and post in accordance with the instructions from the DMR and MDEDET respectively.

8 SUMMARY AND CONCLUSIONS

The scoping phase of the EIA/EMP is almost complete for the proposed project, with the only outstanding task being the review of the report. Initial findings from the scoping phase have identified numerous potential impacts. These potential impacts will be addressed through various investigations. Stakeholder engagement will continue throughout the EIA process

Hylton Allison PrSciNat)
Project manager

Alex Pheiffer (PrSciNat)
Reviewer

9 REFERENCES

Aquarius Platinum (SA) (PTY) LTD's, March 2007: Application for the conversion of Old Order Mining Rights to New Order Rights at Everest Platinum Mine.

Aquarius Platinum (SA) (PTY) LTD, September 2006: Everest Platinum Social and labour Plan.

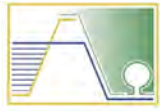
Emery, A.J., Lötter, M.C. & Williamson, S.D. (eds) 2002. Determining the conservation value of land in Mpumalanga. Mpumalanga Parks Board, Nelspruit.

MTPA, 2005. Minimum Requirements when applying for authorisation for an activity that may have a detrimental effect on the environment. Mpumalanga Tourism & Parks Agency, Nelspruit.

SANBI & DEAT. 2009. Threatened Ecosystems in South Africa: Descriptions and Maps. DRAFT for Comment. South African National Biodiversity Institute, Pretoria, South Africa.

APPENDIX A: INFORMATION-SHARING WITH REGULATORY AUTHORITIES

- Record of Discussion with the DMR (28 July 2010)
- Proof of NEMA submission and receipt at MDEDET (2 March 2010)
- NEMA application submitted to MDEDET (dated 4 March 2010)
- Authority invitation to site visit and minutes



AQUARIUS PLATINUM (SOUTH AFRICA) (PTY) LTD
ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED HOOGLAND PROJECT AT EVEREST
SOUTH PLATINUM MINE

MINUTES OF DMR START-UP MEETING FOR SCOPING

DATE & TIME:	Thursday 28 January 2010, 10h00 to 11h00
VENUE:	DMR Offices Emalahleni
PROJECT:	Proposed Hoogland Mining project (Hoogland) and associated activities at Everest Platinum Mine
PROJECT NUMBER:	E017-06
PURPOSE:	The purpose of the scoping meeting was to: outline the project and environmental assessment process; record any issues and questions raised; and agree on the process to be followed and the way forward.
ATTENDANCE:	See attached attendance record (Appendix 1).

1. OPENING AND INTRODUCTION

Alex Pfeiffer (AP) from Metago Environmental Engineers (Pty) Ltd (Metago) opened the meeting and introduced her colleague Hylton Allison (HA) also from Metago.

2. APOLOGIES

None.

3. PRESENTATION AND SITE VISIT

AP (Metago) gave an overview of the project; referring to the locality map i. Metago highlighted the proposed Hoogland project. The main activities associated with this project include; to excavate and mine via the open cast method two separate open pits and to extend and establish supporting infrastructure at these pits to enable the mining of PGM minerals. HA from Metago highlighted the proposed changes to surface infrastructure at the mine. These include:

two new opencast pits;
temporary overburden, ore and topsoil stockpiles;
temporary storm-water management at each of the open pits;
extending existing powerlines to the open pits; and
access road for administration and management vehicles.

Metago requested input from the DMR on the process to be followed going forward.

4. DISCUSSION

All issues raised/questions asked during the meeting with responses given by the project team is presented in Table 1.

TABLE 1: SUMMARY OF ISSUES RAISED AND RESPONSES GIVEN

By whom	Issue raised	Response (given by HA unless otherwise stated)
Procedural issues		
Alex Pfeiffer (AP)	Requested direction and clarity on how the DMR would like the Section 102 Application handled along with the EIA/EMP amendment	The DMR (Bethuel Mathodzi), recommended that the EIA/EMP amendment be run concurrently with the Section 102 Application.
Bethuel Mathodzi (BM)	Stated that a consolidated document should be provided and that it should contain the following information: A clear motivation The client should meet with the DMR to discuss the application area.	Metago noted this and undertook to inform Aquarius Pty Ltd South Africa
Alex Pfeiffer (AP)	Who will be handling the application	BM indicated that his colleague Ms Mashudu Mutengwa will handle the application and the review of the documentation and her line manager will be Ms Martha Mokonyane.

5. WAY FORWARD

HA (Metago) outlined the way forward:

the scoping report and summary will be distributed to IAPs and DMR.

IAPs will be given 30 days review the scoping report and/or summary and to submit comments in writing directly to Metago.

the scoping report, including IAP comments, will then be forwarded to regulatory authorities for review.

IAPs will be given 30 days to review the report and/or summary and to submit comments in writing directly to Metago.

the EIA/EMP amendment report, including IAPs comments, will then be forwarded to MDEDET for review.

The environmental authorisation/decision will be distributed to all IAPs registered on the project's public involvement database.

6. CLOSE

Alex Pfeiffer thanked the DMR for making time to attend the meeting. The meeting was closed.

APPENDIX 1: ATTENDANCE REGISTER

Name	Organisation	Address	Telephone number	Fax/Email
Hylton Allison	Metago Environmental Engineers	PO Box 1596 Cramerview 2060	011 467 0945	hylton.allison@metago.co.za 011 467 0978
Alex Pfeiffer	Metago Environmental Engineers	PO Box 1596 Cramerview 2060	011 467 0945	alex.pfeiffer@metago.co.za 011 467 0978
Bethuel Mathodzi	Department of Minerals and Energy	Private Bag X7279 WITBANK 1035	013-656-1448	bethuel.matodzi@dme.gov.za
Mashudu Mathengwa	Department of Minerals and Energy	Private Bag X7279 WITBANK 1035	013-656-1448	mashudu.mathengwa@dme.gov.za



Mpumalanga Province Department of Agriculture and Land Administration

(For official use only)

File Reference Number:

Application Number:

Date Received:

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2006

Kindly note that:

1. This application form is current as of 1 July 2006. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. It is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **black out** the boxes that are not applicable in the form.
4. Incomplete applications may be returned to the applicant for revision.
5. The use of "not applicable" in the form must be done with circumspection as if it is used in respect of material information that is required by the competent authority for assessing the application, and may result in the rejection of the application as provided for in the regulations.
6. This application must be handed in at the offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed applications will be accepted.
8. The application must be completed by an independent environmental practitioner.
9. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

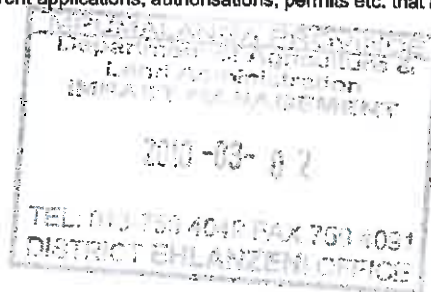
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	3	8	0	0	0	0	0
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	0	1
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	1	3
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	2	5
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	1
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	6
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0
T	0	J	T	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0

(If there are more than 10, please attach a list with the rest of the number)

(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

17/2/2/2/E - 15

Robyn



1. Background information

Project applicant:	Aquarius Platinum (South Africa) Pty Ltd		
Trading name (if any):	Everest Platinum Mine		
Contact person:	Mr Gus Simbanegavi (Mine manager)		
Physical address:	Boschfontein Road, Off R577 between Roossenekal/Lydenburg		
Postal address:	PO Box 1093, Lydenburg		
Postal code:	1120	Cell:	(076) 262 9861
Telephone:	(013) 235-8600	Fax:	(013) 235 8626
E-mail:	Gus.Simbanegavi@aquarius.co.za		

Project consultant:	Metago Environmental Engineers (Pty) Ltd		
Contact person:	Hylton Allison		
Postal address:	PO Box 1596, Cramerville		
Postal code:	2060	Cell:	(082) 789 2666
Telephone:	(011) 467-0945	Fax:	(011) 467-0978
E-mail:	hylton.allison@metago.co.za		
Professional affiliation(s) (if any)	Member of the International Association for Impact Assessments, South Africa branch (IAIAsa) Registered as a professional scientist (environmental management) with the South African Council for Natural Scientific Professions (SACNSP).		

Landowner:	Appendix C		
Contact person:			
Postal address:			
Postal code:		Cell:	
Telephone:		Fax:	
E-mail:			

In instances where there is more than one landowner, please attach a list of landowners with their contact details to this application.

Local authority in whose jurisdiction the proposed activity will fall:	Thaba Chweu Local Municipality		
Contact person:	Noko Seanago		
Postal address:	PO Box 61, Lydenburg		
Postal code:	1120	Cell:	-
Telephone:	(013) 235-7000	Fax:	(013) 235-1108
E-mail:	nokos@thabachweu.org.za		

In instances where there is more than one local authority involved, please attach a list of local authorities with their contact details to this application.

Project title:	Hoogland Platinum Mining Project
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Property description:	Proposed extension of mining activities at Everest Platinum Mine on the farms Hoogland 38 JT, Portions 1 and 6 of Sterkfontein 52 JT, Portions 1, 13, 15 and 25 of De Kafferskraal, Triangle 72JT and the Portion of De Berg 71JT that falls with the study area, as illustrated in Appendix A. (Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.
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Town(s) or district(s):	Nearest towns – Roossenekal (about 25 km west) and Lydenburg (about 30km east)
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Physical address:	Boschfontein Road, off R577 between: Roossenekal/Lydenburg
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In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:	Conservation / wilderness
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In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required?
Must a building plan be submitted to the local authority?

YES	NO
YES	NO

Locality map:

A locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be at least 1:50 000. The scale must be indicated on the map. The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow.

Owners consent:

In line with the requirements of the EIA regulations, letters of consent of all landowners or a detailed explanation by the applicant explaining why consent is not possible must be attached to the back of this document as Appendix B.

2. Activities applied for

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

Indicate the number and date of the relevant notice:	Activity No(s) (in terms of the relevant notice):	Describe each listed activity:
Government Notice No. R386	1 (b)	The construction of facilities or infrastructure, including associated infrastructure for the above ground storage of 1 000 tons or more but less than 100 000 tons of ore. <i>(Ore will be stored beside the open cast area before transport).</i>
	1 (k)	The construction of facilities or infrastructure, including associated infrastructure for the bulk transportation of sewage and water, including storm water, in pipelines with (i) an internal diameter of 0.36 metres or more or (ii) a peak throughput of 120 litres per second or more. <i>(Excess mine water will be transported to the plant).</i>
	1 (l)	The construction of facilities or infrastructure, including associated infrastructure for the transmission and distribution of electricity above ground with a capacity of more than 33 kilovolts and less than 120 kilovolts. <i>(The offices and lights at the mine will require electricity).</i>
	1 (m)	The construction of facilities or infrastructure, including associated infrastructure for the possible presence of infrastructure within the 1:10 year floodline of a river or stream or within 32 m from the bank of a river or stream where the floodline is unknown, excluding purposes associated with existing residential use, but including (i) canals, (ii) channels, (iii) bridges, (iv) dams and (v) weirs. <i>(There are numerous streams that flow towards the open cast area).</i>
	1 (n)	The off-stream storage of water, including dams and reservoirs, with a capacity of 50 000 cubic metres or more, unless such storage falls with the ambit of the activity listed in item 5 of Government Notice No. R387 of 2006. <i>(Mine water will be stored at the pit).</i>
	1 (u)	The construction of facilities or infrastructure, including associated infrastructure for the aboveground cableways and funiculars. <i>(Conveyors and funiculars are being considered).</i>
	4	Dredging, excavation, infilling, removal or moving of soil, sand, rock exceeding 5 m ³ from a river or wetland. <i>(Some preferential flow paths in the project area may need to be temporarily diverted and the status of these flow paths is unknown at this stage).</i>
	7	The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres but less than 1000 cubic metres at any one locating or site. <i>(Diesel for machinery working in the open cast area will be stored close to the pit).</i>
	12	The transformation or removal of natural vegetation of 3ha or more or of any size where the transformation or removal would occur within a critically endangered ecosystem listed in terms of Section 52 of National Environmental Management: Biodiversity Act, 2004 (Act No.

		10 of 2004) <i>(The open pit area will be greater than 3ha in size).</i>
	13	The abstraction of groundwater at a volume where any general authorization issued in terms of the National Water Act, 1998 (Act No. 36 of 1998) will be exceeded. <i>(Dewatering may be required and it is unknown at this stage the volume of water that will be abstracted).</i>
	14	The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding- (a) masts of 15 metres and lower exclusively used (i) by radio amateurs, or (ii) for lighting purposes; (b) flag poles; and (c) lightening conductor poles. <i>(Light masts and communication towers will be constructed).</i>
	15	The construction of a road that is wider than 4 m or that has a reserve wider than 6 m excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30m long. <i>(Haul roads are required to access the opencast pit).</i>
	19	The development of a new facility or the transformation of an existing facility for the conducting of manufacturing, processes, warehousing, bottling, packaging, or storage which, including associated structures or infrastructure, occupies an areas of 1000 square metres or more outside an existing area zoned for industrial purposes.
	20	The transformation of an area zoned for use as public open space or for a conservation purpose to another use.
	25	The expansion of or changes to existing facilities for any process or activity which requires an amendment for an existing permit or license or a new permit or license in terms of legislation governing the release of emissions, pollution, effluent. <i>(Will require authorisation from the Department of Water Affairs and the Department of Mineral Resources).</i>
Government Notice No. R387	1 (e)	Any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R387 of 2005 or included in the list of waste management activities published in terms of section 19 of the National Environmental Management : Waste Act, 2008 (Act No. 59 of 2008) in which case the activity is regarded to be excluded from this list
	1(h)	The manufacturing, storage or testing of explosives, including ammunition, but excluding licensed retail outlets and the legal end use of such explosives. <i>(Explosives used in the open pit will be stored near the pit).</i>
	1(j)	The bulk transportation of dangerous goods using pipelines, funiculars or conveyors with a throughput capacity of 50 tons or 50 cubic metres or more per day. <i>(The possible use of conveyors/funiculars for the transportation of ore).</i>
	2	A development activity including associated structures and infrastructure where the total area of the developed area is, or is intended to be, 20 hectares or more. <i>(The open pit area will be greater than 20ha in size).</i>

Please note that any authorisation that may result out of this application will only cover activities applied for. Omissions may render any authorisation that is based on incomplete information to be nil and void.

3. Type of application

3.1 Application for Basic Assessment

Is this an application for conducting a basic assessment (as defined in the regulations)?

YES	NO
YES	NO

If, YES, is a basic assessment report attached?

If, NO, please indicate when the basic assessment report will be submitted:

Basic assessment information will be incorporated into the EIA

3.2 Application for Scoping and Environmental Impact Assessment (EIA)

Is this an application for Scoping and EIA (as defined in the

YES	NO
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regulations)?

If, YES, is a Scoping Report and Plan of Study for EIA attached?

<input type="checkbox"/>	<input type="checkbox"/>
YES	NO

If, NO, please indicate when the Scoping Report and Plan of Study for EIA will be submitted:

July 2010

The scoping report and/or the plan of study for EIA will be submitted after consultation with the competent authority:

<input type="checkbox"/>	<input type="checkbox"/>
YES	NO

A consultation with the competent authority is hereby requested:

<input type="checkbox"/>	<input type="checkbox"/>
YES	NO