

Based on initial discussion, the provincial competent environmental authority (DENC) informed BMM that due to the ecological importance of the site, (confirmed in the previous EIA), it was likely that a *Biodiversity Offset* commitment would need to be investigated. The purpose of this Section is to provide a brief overview of the current status of the Biodiversity Offsetting investigation that is currently being undertaken. The Biodiversity Offset investigation will be on-going; however, a summary of the offsetting process is presented for review and consideration. The Draft Biodiversity Offset Report is attached as Annex F.

13.1 POLICY FRAMEWORK

According to the Business and Biodiversity Offset Program, a Biodiversity Offset is defined as the following:

“the measurable conservation outcomes resulting from actions designed to compensate for significant negative residual impacts on biodiversity arising from project development after appropriate prevention and mitigation measures have been taken” (Business and Biodiversity Offset Programme, 2012).

In January 2012 the IFC released an updated set of performance standards for large projects. IFC Performance Standard 6 in the series covers *Biodiversity Conservation and Sustainable Management of Living Natural Resources*, and includes reference to the use of Offsets in the mitigation hierarchy. It requires consideration and due process to avoid and mitigate impacts, as far as possible, on critical habitat, threatened species and ecosystem services.

A draft National Biodiversity Offsets Policy Framework is currently under development in South Africa by the Department of Environmental Affairs (DEA), the nine provinces and SANBI and as yet is only available in draft form. Both the Western Cape and KwaZulu-Natal have issued guidelines for Biodiversity Offsets, and other provinces are developing their own.

A detailed explanation of the theoretical framework for biodiversity offsets is contained in the Draft Report (see Annex F). The theoretical discussions revolve around when a biodiversity offset is required, what habitat can be offset, which habitat cannot be offset (ie irreplaceable) and the implications thereof in terms of tradeoffs and ecological compensation.

13.2 APPROACH TO BIODIVERSITY IMPACT ASSESSMENT

The findings of the biodiversity impact assessment are included into *Section 9*. A variety of sensitive habitats are expected to be impacted and/ or lost as a

result of this Project. Sensitive habitats were identified, prior to the layout planning process for the mine infrastructure. As explained in *Section 4*, a rigorous process of *avoidance* was undertaken to avoid the physical impact to irreplaceable habitat. As complete avoidance is not possible due to the dimensions of the underground ore body and the associated technical constraints, parts of the open pit will physically impact irreplaceable habitat, (see Project Layout in *Section 3*). Other impacts on irreplaceable and constrained habitat resulting from dust deposition and groundwater drawdown also resulted in a residual impact that needs to be offset.

Based on the habitat classification and expected distribution of impacts identified by Dr Desmet, both the Faunal Specialist and General Ecologist agreed that no additional consideration is required to address habitat losses relevant to their studies.

Concurrent to the biodiversity impact assessment, a regional habitat study was commissioned by BMM to run concurrent to the ESIA process. The purpose of the regional study was to confirm the types of habitats present in the region and its similarity to habitat found on the Gamsberg inselberg. The Regional Study also helped inform the viability of this biodiversity offset process, as it confirmed that most of the habitat found on the Gamsberg inselberg is present in other parts of the region.

13.3 STAKEHOLDER ENGAGEMENT

The biodiversity offset process has included engagement with various key stakeholders. The purpose of the engagement with key stakeholders was to understand the expected residual impacts of the Project, confirmation of the scope of the offset, agreement on the interpretation of applicable local, national and international guidelines/policies applicable to this process and finalisation of the approach and methodology. The following stakeholders have been engaged with, to date:

- DENC
- SANBI (by request of DENC)
- SANParks (by request of DENC)
- WWF-SA
- Conservation South Africa
- BirdLife SA
- Wilderness Foundation
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- SKEP
- DMR
- DWA

The stakeholders identified were based on recommendations from the DENC and environmental NGO's. Once a detailed offset plan is developed, further stakeholder engagement may be undertaken (outside of the ESIA process).

13.4 DEFINING RESIDUAL IMPACT

Based on the findings of the biodiversity impact assessment contained in *Section 9* above, the residual impacts to habitat were determined. Based on the sensitivity (which includes conservation considerations and ecosystem status) of the impacted vegetation, an offset multiplier ratio ⁽¹⁾ was established. The draft Biodiversity Offset Report, containing details of the expected offset is attached as Annex F.

13.5 FINANCIAL IMPLICATIONS AND ARRANGEMENT

Calculating the financial implications of the offset would recognise the following costs:

- Costs of land acquisition;
- Cost of incorporation, establishment and restoration of the offset area;
- On-going maintenance and management costs for the offset area over an agreed time-period; and
- The cost of transaction (such as legal, administrative and consulting costs).

Additional factors will also need to be considered and agreement reached between BMM and the relevant stakeholders/ authorities. A dual approach to financing the offset is being proposed, which is as follows:

- An upfront amount should be held in trust by a suitable authority – sufficient to cover the capital costs of offset establishment for the first phase, and including an endowment covering a significant component of the on-going management costs; and
- Annual contributions to the management endowment, not less than the projected costs, and possibly augmented during later phases.

The financial implications of the offset area will need to be finalised, prior to the commencement of the Project.

13.6 WAY FORWARD

Upon receipt of comment, the draft Biodiversity Offset Report will be updated where relevant. The construction of this Project cannot proceed, until such time as the Biodiversity Offset commitment is secured, in line with Policy and stakeholder requirements.

(1) An offset ratio is the extent of habitat required to be offset, relative to the actual loss of habitat. This is represented as a "multiplier", for each impacted habitat, which varies based on ecosystem/ conservation status.