



the federation for a sustainable environment

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## PRELIMINARY COMMENTS ON THE BOJANALA PLATINUM DISTRICT MUNICIPALITY: ENVIRONMENTAL MANAGEMENT FRAMEWORK

### DESIRED STATE OF THE ENVIRONMENT

The following comments are submitted on behalf of the Federation for Sustainable Environment (FSE). The FSE is a federation of community based civil society organisations committed to the realisation of the constitutional right to an environment that is not harmful to health or well-being, and to having the environment sustainably managed and protected for future generations. Their mission is specifically focussed on addressing the adverse impacts of mining and industrial activities on the lives and livelihoods of vulnerable and disadvantaged communities who live and work near South Africa's mines and industries.

The FSE's comments, in line with its mission, are confined to the mining industry and in particular the platinum group metal producing mines in the Bonjanala Platinum District Municipality and mining applications and authorisation within the Marico River Catchment<sup>1</sup> and its impacts upon the environment and water resources. Our concerns, comments and recommendations are motivated by recent environmental authorisations of mining applications within areas of highest biodiversity importance and the profound often irreversible impacts on eco-systems and sustainable future land use with associated resources such as water.

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<sup>1</sup> A number of applications for mining and prospecting has recently been authorised with the Marico River Catchment. The Groot Marico River is a key water resource, which is classified in the Ecological category A/B – largely natural. The upper reaches of the Groot Marico River are a river FEPA due to its clean, free flowing nature where the vulnerable Marico barb is found. The Quaternary Catchments A31A and A31B fall within a flagship NFEPA and the Catchment encompasses an Aquatic CBA 1 and terrestrial CBA. Certain areas within the catchment have already been declared protected areas and that the entire area is currently before UNESCO for consideration as a Biosphere Reserve. The river originates from the dolomitic eye of the Marico River (Kaallog). The Groot Marico River forms the south-western headwaters of the Limpopo. The Catchment is the pumphouse of the Limpopo river. The Groot Marico River provides water to hundreds of thousands of downstream water users and the Molatedi Dam, which supplies North West's premier Big 5 Madikwe Game Reserve. The water is also pumped from the Tswasa Weir at the Dam to Gaborone in terms of the international Tswasa Agreement.

## CURRENT STATUS

With reference to the platinum group metal producing mines in the Bonjanala Platinum District Municipality: The Bushveld Igneous Complex contains the world's richest platinum reserves and is situated in the north-eastern part of the North West Province. The Pilanesberg National Park, which includes areas of highest biodiversity importance, as well as the corridor to link the Pilanesberg National Park with Madikwe in terms of the proposed Heritage Park are also situated within the North West Province.

According to Charles Ndabani, the Chief Executive of the North West Parks and Tourism Board *“the linkage of Pilanesberg with Madikwe will result in a vast area, comprising a mosaic of different land forms for ecotourism and resources use in the short to medium term. The ultimate thrust of this project is to achieve one large ‘Big Five’ Game Reserve, offering free movement of game throughout the entire fenced area. Through capitalising on the tourism success of both game parks, the project is anticipated to contribute significantly to social upliftments efforts by more than doubling the economic growth in the region.”*

A number of applications for the expansion of mining operations within the corridor of the proposed Heritage Park has been authorised<sup>2</sup>. Some of the authorisations fall within highest biodiversity important areas and within the corridor, which is proposed to link the Pilanesberg National Park with Madikwe.

These applications and authorisations include *inter alia* the amendment to the closure plan for the Pilanesberg Platinum Mine’s Tuschenkomst Pit, the expansion of the Tuschenkomst Pit and the establishment of additional surface infrastructure at the Sedibelo Platinum Mine, Moses Kotane Local Municipality, North West Province (Ref: NWP/EIA/89/2011). The latter application was authorised notwithstanding the fact the EIA/EMP recognises that:

- the Project’s infrastructure will remain post-closure and may accordingly jeopardise the development of the Heritage Park Corridor proposed by the North West Parks and Tourism Board’s to link the Pilanesberg National Park with the Madikwe;
- the Sedibelo Mine is primarily located in an area having highest biodiversity importance with the southern portion of the site comprising mainly areas of high biodiversity importance according to the Mining and Biodiversity Guidelines (2013).

In terms of the Mining and Biodiversity Guideline *“the likelihood of a fatal flaw for new mining project is very high because of the significance of the biodiversity features in these areas and the associated ecosystem services. These areas are viewed as necessary to ensure protection of biodiversity environmental sustainability, environmental sustainability, and human wellbeing.”*

With reference to mining and prospecting applications and recent authorisations within the Marico River Catchment: The Groot Marico River is a key water resource. It is classified in the Ecological category A/B (largely natural) and the Marico Catchment is the pumphouse of the Limpopo River.

With reference to the water situation within the North West Province and Limpopo: The Limpopo River Basin is already over-allocated by about 120% and is facing a 241% increase in demand by 2025. (Ref. Ashton 2009)

A dramatic increase in water demand is expected in the Limpopo Water Management Area (WMA) as a result of:

- Current mining activities and proposed mining activities
- Sasol's proposed Maphuta coal to liquid fuel projects
- The exploitation of the vast coal reserves in the Waterberg;
- The expansion of the Grootegeeluk mine to supply the new Medupi Power Station with coal; and
- Matimba and Medupi - three new Eskom power stations in the future
- Implementation of the Reserve is expected to result in serious deficits in some of the main river catchments.

(Ref. DWS' Classification of Significant Water Resources in the Crocodile (West) Marico WMA and Matlabas and Mokolo Catchments: Limpopo WMA (WP 10506) Classification Report; DWS Business Case for the Limpopo CMA. September 2013.)

In terms of Limpopo WMA (North) Reconciliation Strategy, it was found that:

- "The bulk of the water resources in the Mogalakwena catchment have been fully developed.
- "The Doorndraai Dam is over-allocated.
- "Additional water to support the rapid expanding mining activities in the vicinity of Mokopane needs to be augmented by transfers from ...the adjacent Olifants River catchment.
- "The expanding urban and industrial requirements of Polokwane and Makhado LMs, rely heavily on water transfers from adjacent WMAs. This includes transfers from ...Olifants River catchment\*."

\*(The classification and reconciliation strategy of the Olifants River Catchment, however, was developed with the understanding that there would be no transfers to or from the Olifants River Catchment.)

DESIRED STATE OF THE ENVIRONMENT

Intra Generational Equity

While the community may benefit during the life-time of mining projects, future generations may well have their livelihood opportunities and their quality of life reduced by unsustainable post closure land use. It is of utmost importance that the EMF recognizes and accommodates intra<sup>3</sup> and inter<sup>4</sup>-generational equity, with its medium-long term horizons and to ensure that the interests of both current and future generations are not compromised.

### Need and Desirability

It is crucial that the EMF furthermore prescribes (or recommends) that in environmental decision making, the need and desirability assessment of a mining project be evidence-based and not subjective and that in the evaluation of the need and desirability, associated cumulative (that is, regional) impacts, including the externalised impacts and costs, be considered.

These costs include costs associated with rehabilitation (to a pre-determined, agreed upon and sustainable future land use), cost to human and environmental health and the social legacy of people employed supported and attracted to the mine and its surrounding areas. These impacts typically required several decades to take effect. By the time that environmental and socioeconomic consequences become noticeable, the mines have typically closed or become insolvent and thus cannot be compelled anymore to contribute to remediation, either financially or through other actions.

### Promotion of Justifiable Economic Development

In terms of Section 24 of the Constitution of the Republic of South Africa (Act 108 of 1996) everyone has the right to have the environment protected, *“for the benefit of present and future generations, through reasonable legislative and other measures”* that *inter alia* *“secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”*

This necessitates that in the cost/benefit analysis of a mining project:

- the externalised and long term (latent and residual) impacts and costs
- the benefits derived from alternative land uses such as tourism and eco-tourism

of the project be considered in order to determine the economic viability of the proposed mine development. A mining operation may in the short term provide jobs and economic stimulus into the area but may worsen poverty in the medium and long term because of its unintended consequences, namely the degradation of land, pollution of water resource, destruction of the diversity of life, etc.

The balancing of the negative environmental impacts versus the alleged short term social benefits (which have, in the past, not accrued to the local communities) and the economic advantages can only be assessed if the loss to the environment is evaluated. This appraisal

<sup>3</sup> Intra-generational equity aims to provide people of the same generation with equal dignity and opportunities. Together with inter-generational equity, it is the load-bearing element of the concept of culture of sustainability

<sup>4</sup> Intergenerational equity in the environmental context, is the concept or idea of fairness or justice between generations.

ought to be conducted with the guidance of *inter alia* the Mining Biodiversity Guideline<sup>5</sup> and the taking into consideration of the opportunity costs.

In the light of the above-mentioned, the FSE recommends that the EMF requires that the decision makers in mining applications must take into consideration whether a proposed development will constitute the best use of the resources (i.e. the best practicable environmental option). This ought to include an assessment of the opportunity costs, e.g.

- o Understanding the value of the foregone opportunity (e.g. tourism and eco-tourism);
- o The achievement of the desired aim/goal for the specific area (e.g. the development of the proposed Heritage Park and promoting eco-tourism and conservation);
- o Optimising of positive impacts;
- o Minimising of negative impacts;

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<sup>5</sup> According to the Mining and Biodiversity Guideline the importance of the biodiversity features in these areas and the associated ecosystem services is sufficiently high to prohibit mining in these areas. Given the very high biodiversity importance, the Guideline states that an EIA conducted in respect of such an area should include the strategic assessment of optimum, sustainable land-use for a particular area which should determine the significance of the impact on biodiversity. The EIA must take into account the environmental sensitivity of the area, the overall environmental and socio-economic costs and benefits of mining as well as the potential strategic importance of the minerals to the country.

The Guideline states that the EIA “needs to identify whether mining is the optimal land use, whether it is in the national interest for that deposit to be mined in that area and whether the significance of unavoidable impacts on biodiversity are justified. It is important that a risk averse and cautious approach is adopted. This implies strongly avoiding these biodiversity priority areas, given the importance of the receiving environment and the probability that the proposed activity would have significant negative impacts”.

When considering mining these biodiversity priority areas, the Guideline prescribes a set of filters that should be sequentially applied and "mining should only be considered if:

- It can be clearly shown that the biodiversity priority area coincides with mineral or petroleum reserves that are strategically in the national interest to exploit.
- There are no alternative deposits or reserves that could be exploited in areas that are not biodiversity priority areas or less environmentally sensitive areas.
- It can be demonstrated that they are spatial options in the landscape that could provide substitute areas of the same habitat conservation, to ensure that biodiversity targets would be met.
- A full economic evaluation of mining compared with other reasonable/feasible alternative land uses, undertaken as a necessary component of the EIA, shows that mining would be the optimum sustainable land use in the proposed area.
- A detailed assessment and evaluation of the potential direct, indirect and cumulative impacts of mining on biodiversity and ecosystem services shows that there would be no irreplaceable loss or irreversible deterioration, and that minimising, rehabilitating, and offsetting or fully compensating for probable residual impacts would be feasible and assured, taking into account associated risks and time lags.
- A risk averse and cautious approach, taking into account the limits of current knowledge about the consequences of decisions and actions, can be demonstrated both in the assessment and evaluation of environmental impacts, and in the design of proposed mitigation and management measures.

The Guideline states further that “The above filters should form the basis for deciding on whether or not, and how and where, to permit mining. This means that based on the significance of the impact, some authorisations may well not be granted. If granted, authorisation may set limits on allowed activities and impacts, and may specify biodiversity offsets that would be written into licence agreements and/or authorisations”.



- o Equitable distribution of impacts; and
- o The maintenance of ecological integrity and environmental quality.

The current model for the development of mining within the North West Province and Limpopo is not sustainable. While we acknowledge that mineral extraction location is based on the ore deposit and that alternative locations of the mining area may be very limited, the fact is that some metals, such as platinum and fluorspar is plentiful within the North West Province. It is overproduced and the sensitive environment is neither of the aforesaid. It is therefore recommended that applications for the extraction of these metals in sensitive environments not be authorised.

#### No-Go Option

In conclusion and in summary, we recommend that the EMF proposes the no-go option for mining within water source areas and water focus areas and areas of high biodiversity (critically endangered and endangered ecosystems, critical biodiversity areas, river and wetland freshwater ecosystem priority areas and a 1 km buffer around these areas, Ramsar sites), and legally protected areas.

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