the federation for a sustainable environment

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ENVIRONMENTAL AUTHORISATION PROCESS FOR THE MIDDELVLEI MINE, RANDFONTEIN, GAUTENG
MIDDELVLEI MINERALS (PTY) LTD

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 is/was *inter alia* a member of:

- The Water and Sanitation Sector Leadership Group: The Water and Sanitation Sector Leadership Group (WSSLG) is the highest non-statutory strategic sector partnership forum for the South African water sector.
- Steering Committee: National Environmental Impact Assessment and Management Framework (Department of Environmental Affairs)
- Regional Steering Committee of the Catchment Management Agency for the Vaal River (Department of Water Affairs - DWS.)
- Implementation Task Team: Remediation Action Plan for the Wonderfonteinspruit Catchment Area (NNR and DWS)
- DWS' study steering committee on the Feasibility Study For A Long Term Solution To Address The Acid Mine Drainage Associated With The East, Central And West Rand Underground Mining Basins
- DWS' Expert Steering Committee for the Resource Quality Objective Determination Study for the Upper and Lower Vaal Water Management Area

- Gauteng Department of Agriculture and Rural Development's Steering Committee for the Reclamation of Mine Residue (Gauteng Department of Agriculture and Rural Development)
- DWS' Steering Committee for the Classification of Significant Water Resources in the Upper, Middle and Lower Vaal Water Management Areas (Department of Water Affairs)
- SSC for the DWS' Vaal River System Reconciliation Strategy Study
- Convener of the Public Involvement and Participation component of the remediation programme for the Wonderfonteinspruit Catchment Area (NNR and DWS)
- The South African Human Rights Commission's Section 5 Advisory Committee on Mining and Acid Mine Drainage
- The SAHRC's Advisory Committee (section 11) to monitor and assess the implementation of the recommendations and directives arising out of the Commission's National Hearing on the Underlying Socio-economic Challenges of Mining-affected Communities in South Africa report.
- The North West University's Eco Health Research Forum
- DWS' Wonderfonteinspruit/Loopspruit Forum Management Committee
- DWS' Executive Kromdraai Forum Committee

And, the author of a number international and national academic papers and books e.g. "*Uranium – Past and Future Challenges - Current reclamation of historical uraniferous tailings dams and sand dumps – exacerbating the mess or minimizing the mining footprint? Case studies within the Witwatersrand goldfields"* (Technische Universität Bergakademie, Freiberg (Springer); *"Mine Water and Innovative Thinking – Proactive environmental activism to promote the remediation of mined land and acid mine drainage: a success story from the South African goldfields"* (Cape Brenton University); "*Selected extracts from South Africa's environmental legislation: challenges with the management of gold tailings within the Witwatersrand gold fields and case studie*s" (2019. Australian Centre for Geomechanics. ISBN 978-0-9876389-2-2).

As a result of the above-mentioned, the FSE has an interest in the above-mentioned Project.

RELEVANT FINDINGS AND RECOMMENDATIONS OF THE SOUTH AFRICAN HUMAN RIGHTS COMMISSION

We recommend that the Applicant gives consideration to the South African Human Rights Commission's (SAHRC) recent findings and directives pursuant to the Commission's *National Hearing on the Underlying Socio-Economic Challenges of Mining-Affected Communities in South Africa*. (Please see the attached Report.) The Report found and directed the DMR:

1. Not to grant licences where long term sustainable land use cannot be guaranteed
2. There is an immediate need for all EIAs and EMPRS to clearly detail land quality and potential post closure land use
3. A study be commissioned to study and assess the impact of mining on human health
4. Electronically publish all SLPs in its possession.

The Commission furthermore directed all mining companies to:

1. Develop internal mechanisms for the dissemination of information to ensure that all relevant documents are made available to interested and affected parties and the public generally.
2. Establish community engagement forums with mining affected communities.

The provision for these internal mechanisms for the dissemination of information and engagement forums is particularly important in the light of the findings of Judge Spilg in the Uzani Environmental Advocacy v BP Southern Africa (Pty) Ltd matter, in which he found:

"NEMA not only requires a transparent administration but recognised the contribution that can be made to the protection of the environment by a vigilant and committed public which has most to lose. Securing protection is therefore no longer the exclusive preserve of those engaged in these activities, nor of an opaque administration or an under-capacitated and potentially inhibited law enforcement agency which cannot claim the number of successful convictions one would have expected despite clear evidence of historic degradation to our environment."

CUMULATIVE IMPACTS

The mining area falls within the Wonderfonteinspruit Catchment Area.

The Wonderfonteinspruit, has been identified in a significant number of studies as the site of significant radioactive and other pollution, generally attributed to the mining and processing of uraniferous gold ores in the area.

It is common cause that the mean values for the Wonderfonteinspruit samples were found to exceed not only natural background concentrations, but also levels of regulatory concern for cobalt, zinc, arsenic, cadmium and uranium, with uranium and cadmium exhibiting the highest risk coefficients.

The cumulative impacts of the proposed mining operations on the Wonderfonteinspruit Catchment Area must be assessed in order to determine whether the Wonderfonteinspruit has the capacity to carry additional pollution loads. The Wonderfonteinspruit Catchment Area is densely populated and the water is use for irrigation, domestic purposes, watering of cattle, spiritual rituals, recreation and at times for drinking purposes.

FUTURE LAND USE

One of the most critical issues is post-mining land-use: While communities may benefit during the life-time of the project, future generations may have their livelihood opportunities and their quality of life, reduced by a lack of post-closure land-use planning.

The statement in the BID refers to the future land use as wilderness status. This is a sub-economic and an unsustainable future land use.

In terms of the Appendix 5 of the EIA Regulations (2014 and updated in 2017), as it pertains to Closure and Future Land Use, the land must be rehabilitated "*to its natural or predetermined state or to a land use which conforms to the generally accepted principle of sustainable development*".

Since interested and affected parties are the ultimate recipients of potential, ongoing and historical pollution and the potential future land users, the requirements of the MPRD Regulations entail that interested and affected parties must be involved in the agreements regarding future land use of affected areas and this in the decisions regarding the establishment of objectives for such future land use, as well as in discussing the alternatives for engineering interventions, where decisions regarding such option swill affect the future land use.

We failed to find the record of the Applicant's and its EAP's consultation with Interested and Affected Parties regarding future sustainable land uses and livelihood opportunities, and the closure objectives according the agreed upon future land use.

In accordance with applicable legislative requirements for mine closure, **the holder of a mining right must ensure that the closure of a mining operation incorporates a process which must start at the commencement of the operation and continue throughout the life of the operations.**

Since the Regulations for Financial Provision require progressive or concurrent rehabilitation, it is necessary for the Applicant to establish the closure objectives in collaboration with interested and affected parties in order that the concurrent rehabilitation is relevant to the future land use.

FINANCIAL PROVISIONS

In terms of section 5 of *National Environmental Management Act (107/1998): Regulations pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production Operations*:

"An applicant or holder of right or permit must make financial provision for—

(c) remediation and management of latent or residual environmental impacts which may become known in future, including the pumping and treatment of polluted or extraneous water."

The financial provisions must include an assessment of the following risks when determining the financial provision:

- The near certainty of contaminated water (including acid mine drainage since gold mines are acid producing), which will require pumping and treatment
- The possible decant of acid mine drainage after closure into receiving water bodies and streams or lower-lying interconnected neighbouring mines.
- Since the gold ore within the West and Far West Rand co-occurs with uranium, the near certainty of technologically enriched natural radioactive material (TENORM) contamination of soils and sediments
- The near certainty of sulphate and metal contamination of soils and sediments by seepages from stockpile overburden material, tailings spillages and plant discharges and the potential for contamination of downstream/downwind soils and sediments.
- The near certainty of sulphate, chloride, metal and TENORM contamination of surface water bodies and their sediments and groundwater from tailings spillages, plant discharges and open pit workings. In addition the potential contamination of surface

soils overlying shallow polluted groundwater vi evaporative pathways during dry seasons.

- Since the mine operations will be in close proximity to farming areas and residential dwellings with home gardens and livestock grazing, the potential for sulphate, chloride, metal and TENORM contamination of crop soils irrigated with contaminated surface water or contaminated groundwater.
- The concomitant loss of biodiversity and potentially ecosystem goods and services on disturbed, fragmented or polluted properties.
- The potential for bioaccumulation of some metals and TENORMS by flora and fauna.
- The potential for exposure to bioaccumulated pollutants and radioactivity impacts on humans.
- The potential for human disease as a result of exposure to windblown dust from the mining operations.
- The potential for mining exacerbated sinkhole formations and structural damage to buildings and other structures, as well as human injury.

Since the Proposed Regulations pertaining to *Financial Provisioning for the Rehabilitation and Remediation of Environmental Damage caused by Reconnaissance, Prospecting, Exploration, Mining or Production Operations* (17 May 2019) most probably would have been published by the time that the Project is authorised, we request that the Applicant determine and provide sufficient funds for:

- progressive rehabilitation and remediation;
- rehabilitation, remediation, decommissioning and closure activities; and
- remediation and management of residual and latent environmental damage including the ongoing pumping and treatment of polluted or extraneous water

And, in the event of unscheduled closure that the Chief Executive Officer of the Applicant, holder, or person appointed in a similar position, or where liquidation or business rescue proceedings have been initiated, the liquidator or business rescue administrator of the company, accepts his or her responsibility for implementing the plans and report contemplated in subsregulation (2) (annual rehabilitation, final rehabilitation, decommissioning and mine closure, remediation and management of residual and latent environmental impacts, including the ongoing pumping and treatment of polluted or extraneous water). (Reference: Regulation 6 (6).)

REGULATIONS ON USE OF WATER FOR MINING AND RELATED ACTIVITIES AIMED AT THE PROTECTION OF WATER RESOURCES (GN. R. 704 OF 4 JUNE 1999)

Since the mining operations will be in close proximity to densely populated residential areas it is imperative that the Applicant complies with section 8 of the abovementioned regulations, namely:

"Every person in control of a mine or activity must-

(a) Cause any impoundment or dam containing any poisonous, toxic or injurious substance to be effectively fenced-ff so as to restrict access thereto, and must erect warning notice boards at prominent locations so as to warn persons of the hazardous contents thereof."

We wish to also draw the Applicant's attention to the requirements in terms of section 9 of the said Regulations namely:

"Any person in control of a mine or activity must at either temporary or permanent cessation of operations ensure that all pollution control measures have been designed, modified, constructed and maintained so as to comply with these regulations."

The failure by the previous owners to comply with the abovementioned Regulations has resulted in drownings of persons and significant risks to health and safety.

DUTIES, RESPONSIBLITIES AND LIABILITIES

We now refer to Section 28 of NEMA which states which directs that: "Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring" and Section 19 of the NWA which directs that:

"19 (1) An owner of land, a person in control of land or a person who occupies or uses the land on which-
Any activity or process is or was performed or undertaken; or
*Any other situation exists, which causes, has cause or is likely to cause pollution*of a water resource, must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring."*

*(Pollution means the direct or indirect alteration of the physical, chemical or biological properties of a water resource so as to make it less fit for any beneficial purpose for which it may reasonably be expected to be used; or harmful or potentially harmful to the welfare, health or safety of human beings, aquatic or nonaquatic organisms, resource quality or property.)

We wish to advise that there is no defence to say that the pollution or environmental degradation was caused by the Applicant's predecessors and that the Applicant has no duty of care to prevent significant pollution or degradation of the environment from occurring, continuing or recurring. The responsibility by the "successor-in-title" to take reasonable steps to prevent pollution and environmental degradation remains even if the pollution and environmental degradation is historic.

CONCLUSION

We request that the responses to our comments be meaningful and not merely "noted."

We wish to advise that we may augment our comments and request that our previous oral comments and future comments be read in conjunction with these comments.

SUBMITTED BY:
Mariette Liefferink
CEO: FEDERATION FOR A SUSTAINABLE ENVIRONMENT
10 JULY 2019.