



the federation for a sustainable environment

(Reg. No. 2007/003002/08)  
NPO NUMBER 062986-NPO  
PBO No. (TAX EXEMPT) 930 039 506  
Postnet Suite #113, Private Bag X153, Bryanston, 2021

REPLIES TO THE ENVIRONMENTAL ASSESSMENT PRACTITIONER'S RESPONSES  
TO THE FSE'S COMMENTS  
&  
FINAL COMMENTS ON SELECTED EXTRACTS OF THE REVISED DRAFT  
ENVIRONMENTAL IMPACT ASSESSMENT REPORT/FINAL ENVIRONMENTAL  
IMPACT ASSESSMENT REPORT

The following comments are submitted on behalf of the Federation for Sustainable Environment (FSE).

The FSE's main objective in terms of its Memorandum of Incorporation (MOI) is to promote the ecological sustainability of development and the wise use of natural resources in southern Africa. The company's objective includes *inter alia* the protection and promotion of environmental health and functional ecosystems for future generations, and the facilitation of the remediation of existing environmental degradation.

The aim of the proposed Valley Silts Project, according to the Revised Draft/Final Environmental Impact Assessment Report (page viii), is to remove a source of pollution in the area and rehabilitate target areas in the Russell Stream; to enhance the ecosystem functioning; and as a consequence minimise the risk of flooding of houses within Riverlea.

It follows hence that there is alignment between the FSE's objectives and the desired outcome of the proposed Project. The FSE is therefore, in principle, supportive of the proposed project from an environmental perspective. There is uncertainty, however, regarding the recruitment, skills development- and procurement opportunities for the Riverlea community.

We concur with the findings of the social assessment (section 7.10.9 - page 178 of the Final Environmental Impact Assessment Report), namely that the Riverlea community has a negative perception regarding the project as a result of its historic adversarial relationship with the Applicant, unresolved issues and limited job opportunities.

In view of the aforesaid, the Applicant will have to demonstrate to the community that the Project will result in both environmental benefits *and* socio-economic benefits, not only for the staff and contractors of Ergo, but also for the residents of Riverlea. Corporate Social Responsibility (CSR) or licence to operate requires that the Applicant delivers benefits **beyond its legal obligations in terms of its SLP Programmes**. The approach of the Applicant should be not only “how do we clean up the mess”, a local problem with a technical solution, but also “how do we deliver economic value to the community that we impact on”. It will be necessary for the Applicant to demonstrate that the socio-economic wellbeing of the local community will increase rather than decrease<sup>1</sup> as a result of the proposed Project.

The subjoined comments are in reply to the responses of the Environmental Assessment Practitioner (EAP) and to proffer comments on extracts of the Final Environmental Impact Assessment Report of the Valley Silts Project. Our replies and comments should not be conceived as oppositional or contradictory but rather to seek to understand and to ripen and settle our judgment.

#### THE FSE’S REPLIES TO THE ENVIRONMENTAL ASSESSMENT PRACTITIONER’S (KONGIWE ENVIRONMENTAL (PTY) LTD) RESPONSES TO THE FSE’S COMMENTS

Para 1.

Response: “Kongiwe does not agree that historic liabilities will necessarily fall on the holder of a new mining right.”

The FSE’s reply: The MPRDA provides for the transfer of environmental liabilities in section 43(2) in a particular manner, namely on written application in the prescribed manner by the holder of a mining right, the Minister may transfer such environmental liabilities and responsibilities as may be identified in the EMP and closure plan to a person with such qualifications as may be prescribed.

**Since MR184 GP was transferred from Crown Gold to Ergo Mining (Pty) Ltd in 2015 it begs the question whether or not Crown Gold applied to the Minister in terms of the above-mentioned provisions for the transfer of its environmental liabilities and responsibilities to Ergo and if so, whether it was granted.**

While the FSE concurs that according to the MPRDA, the NWA and the NEMA the holder of a mining right whose mining caused or resulted in ecological degradation, pollution or environmental damage is responsible for the environmental damage, pollution or ecological degradation which may occur inside and outside the boundaries of the area to which such right relates and “**remain[s]** responsible for any environmental liability, pollution or ecological degradation and the management thereof until a closure certificate has been issued, Section 19(1) of the NWA includes “an owner of land, **a person in control of land** or a person who

---

<sup>1</sup> Please refer to RJ Lambeck: Mine closure or mind closure – are mining companies meeting their whole of life cycle, triple bottom line obligations? ISBN978-0-9804185-9-0. Mine Closure 2009 - AB Fourie & M Tibbett (eds) 2009 Australian Centre for Geomechanics, Perth.

occupies **or uses the land** on which – (a) any activity or process is or **was performed or undertaken.**”

The Applicant (Ergo Mining Pty Ltd) , as the holder of the mining right, is the current “person in control of the land” and user of the land on which mining **was** performed (historically) and accordingly – according to our understanding - is responsible to “take all reasonable measures to prevent any such pollution from occurring, continuing or recurring.”

Subsection (5) of the above-mentioned Section of the NWA further clarifies the liability of a holder of a new mining right. If a person (owner of the land, a person in control of land or a person who occupies or uses the land) fails to take “contain or prevent the movement of pollutants; eliminate any source of the pollution; remedy the effects of the pollution; and remedy the effects of any disturbance to the bed and banks of a watercourse” (s. 19, subsection 2 (c); (d) (e); (f)) a catchment management agency (CMA) may direct any person who fails to take the above measures to commence and complete the required measures and should a person fail to comply with the CMA’s directive, the CMA [or in the absence of a CMA, the DWS] may take the measures necessary to remedy the situation and recover the costs from *inter alia* “(b) the owner of the land at the time when the pollution or potential pollution occurred, or **that owner’s successor-in title.**”

(Emphasis added.)

#### Para 2.1

Response: “*While it is true that there would in most cases be an obligation to obtain a closure certificate, this would not necessarily apply to a historic mine closed many years before the commencement of the MPRDA.*”

The FSE’s reply: While we concur that the MPRDA, in 2004, marked a shift in the perception about mine closure and that mine closure must, since 2004, include not only a legal and technical process but also the social and economic impacts of mine closure, **requirements for mine closure predated the commencement of the MPRDA.** While the initial requirements for mine closure were not as detailed, it did entail the concept of “safe-making of the surface of mining land” and the submission of a basic ‘rehabilitation plan’. This became a legal obligation in **1956** with the Regulations to the Mines and Works Act.

**Furthermore, according to the Fanie Botha Accord, it has been obligatory since 1956 in terms of the Water Act of 1956 for a mine owner to take certain pollution control measures while the mining operations are in progress and even for subsequent pollution as a result of new activities by the company (e.g. the re-working of a dump deposited at an abandoned operation).** Please see subjoined extract from the Fanie Botha Accord.

## THE FANIE BOTHA ACCORD

Following negotiations between Government and the Chamber of Mines during late 1975, an arrangement known as the Fanie Botha Accord was concluded in terms of which the rights and obligations of mining companies in relation to water pollution control measures were determined. The provisions of the Fanie Botha Accord may be summarized as follows:

1. Pollution control measures, the maintenance of such measures and all costs appertaining thereto in respect of mining operations abandoned prior to the promulgation of the Water Act, 1956, will be the responsibility of the State with no recourse to the company concerned.
2. Where measures under (1) above are undertaken and the company concerned still owns the land on which such abandoned operations are situate, the company will be asked to adopt a reasonable attitude towards the acquisition by the State of such land as it may require for the measures.
3. Where the company concerned does not own the land but still owns the mineral rights the company will do what it can to assist the State to acquire the land it needs for pollution control measures.
4. Where a company, having abandoned mining operations prior to the promulgation of the Water Act, 1956, has disposed (at any time) of both surface and mineral rights, the company will not be expected to assist the State to acquire land it needs for pollution control measures.
5. Since 1956 it has been obligatory in terms of the Water Act for a mine owner to take certain pollution control measures while mining operations are in progress. Provided such steps have been taken to the satisfaction of the State prior to the abandonment of operations, the State will thereafter take responsibility for the maintenance, and if necessary betterment, of the existing water pollution control works.
6. After having taken the necessary pollution control measures to the satisfaction of the State, the company may abandon mining operations and develop the property for other purposes provided such development does not deleteriously affect existing water pollution control works without assuming a continuing responsibility for maintaining such pollution control measures. Such responsibility would fall solely on the State, unless as a result of its new activities the company caused subsequent pollution. Pollution control measures necessitated by any such subsequent pollution would be the responsibility of the company.
7. Should a company re-open a mine at which operations have previously been abandoned by that company or another mining title holder, or re-work a dump deposited at an abandoned operation in respect of which the State has assumed the responsibility for pollution control measures in terms of (1), (5) or (6) above, such company will be held responsible under the Act for carrying out pollution control measures only in respect of the resumed mining operations on the property, provided the resumed mining operations do not deleteriously affect existing pollution control measures or works.

\*This summary has been reduced by the Chamber of Mines from correspondence between the Chamber and the Department of Water Affairs over the period 4 November 1975 to 19 January 1976.

Response: *“Reference to these mines (historic or not) was made to provide the reader with context of activities which are taking place, or may have taken place, in the surrounding environment over time. These are separate corporate entities and their obligations under the MPRDA and/or NEMA are not the subject of discussion in this EIA/EMP.”*

Our reply: We accept the fact that these mines are separate corporate entities and that these mines are not the subject of the discussion in Ergo’s Valley Silts Project Application. Notwithstanding, the cumulative impacts of the proposed project as well as the impacts of other mines within the region ought to be considered. Furthermore, closure (the **closure** of a mining

operation must incorporate a process which **must start at the commencement of the operation** and continues throughout the life of the operation in accordance with applicable legislative requirements) of this project must take into account the cumulative impacts resulting from all the mines with which Ergo is connected. It calls for a coordinated approach to closure within the Central Rand gold fields in order to ensure that there is a guaranteed sustainable future for this mining region.

This will also be in line with the DMR's and the Council of Geoscience's proposed regional and national mine closure strategies.

Para 2.5

Response: “...baseline radiation study has been conducted during the finalisation of the EIA and no imminent health risks relating to dangerous levels of radiation has been detected.”

Our reply: The FSE expresses its thanks to the EAP and the Applicant for including a radiation study pursuant to the FSE's request, in its Final Environmental Impact Assessment Report.

We have taken note of the findings of the radiation study (para 8.2.2.9, page 245) and are satisfied that the risks have been adequately assessed in compliance with the precautionary or risk averse principle of the NEMA, and that it was found that during the operational phase contributions to the total effective dose to receptors will include:

- inhalation of the airborne dust,
- ingestion of contaminated soil, crops and animal products; and
- external gamma radiation through cloudshine and groundshine.

It was found, however, that the exposure conditions are very low and significantly below the regulatory compliance criteria.

**We concur with the radiation expert's (Dr Japie van Blerk) recommendation to “develop a dust management plan for the project area” during the operational phase. Please also refer to page 247 of the Final Environmental Impact Assessment Report.**

**Pages 276 and 282 of the Final Environmental Impact Assessment Report (sections 8.3.4.1 and 8.3.7.1.2) only refers to dust fallout monitoring and not a dust management plan.**

Sections 5.1 and 5.2 of the Final Environmental Impact Assessment Report refer – according to our understanding - to dust mitigation measures and not a dust management plan. We strongly advocate for a dust management plan and not only a dust monitoring plan. Please see subjoined extract from the Draft National Dust Control Regulations of 25 May 2018, which we assume have been enacted or will be enacted soon.

15. Notwithstanding regulation 14, any person conducting a mining operation; any listed activity that requires a fugitive dust emission management plan; or any person conducting any activity in such a way as to give rise to dust that may exceed acceptable dustfall rates set out in regulation 4 must, prior to undertaking such activity, implement a dust management plan.
16. A dust management plan, contemplated in regulation 14 and 15, must -
  - (1) identify all possible sources of dust within the affected site;
  - (2) detail the best practicable environmental measures to be undertaken to prevent or mitigate dust emissions;
  - (3) detail an implementation schedule;
  - (4) identify the line management responsible for implementation;
  - (5) incorporate the dust fall monitoring programme; and
  - (6) establish a register for recording all complaints received by the person regarding dustfall, and for recording follow up actions and responses to the complainants.
17. Any person who is required to implement a dust management plan must include a proof of implementation of a dust management plan in the monitoring reports.

In substantiation of our recommendations: On page 155 of the Final Environmental Impact Assessment Report we are presented with the monthly average dust deposition rates of the monitoring stations at Wilhelmina L.P. School, Stockwell, Sand Street and Gabiebula, which show dust fallout rates of between 0 and 350mg/m<sup>2</sup>/day. While the above rates indicate no exceedances, the Diepkloof monitoring station shows exceedances of the national annual average standard of 40µg/m<sup>3</sup> for PM<sub>10</sub> and PM<sub>2.5</sub>. The Diepkloof monitoring station is 3.5 km from the Valley Silts Project Area hence – according to our understanding - falls within the zone of influence.

On page 161 of the Final Environmental Impact Assessment Report (section 7.8.6) it is concluded that in addition to the above-mentioned current exceedances, future exceedances of the NAAQS may be expected as a result of the proposed Valley Silts Project and that this will affect some of the residents of Riverlea. The mitigation measures proposed are “keeping roads as far from the project boundaries as possible” or “alternatively, wet or chemical suppression of unpaved roads”; “keeping areas for drying and loading of the silt as far from the northern 3L12 footprint boundary” and “monitoring of dust fallout rates”.

On pages 276 and 277 of the Final Environmental Impact Assessment Report reference is again made to a “mitigation programme”. We fail to find any reference to a dust management plan except in the recommendations of Dr Japie van Blerk. Please advise.

We attach hereunder an example of what we consider to be an appropriate Dust and Air Quality Management Plan.



BOOYSENDAL AIR  
QUALITY MANAGEMEN

Such a Dust Management Plan will also allow for the incorporation of the mitigation measure proposed on page 227 namely to “make available, maintain and effectively implement [a] grievance/complaint register that is easily accessible to all neighbours and affected stakeholders.”

#### Para 6.4

Reference is again made on page 186 (section 7.11.5.3) of the Final Environmental Impact Assessment Report to approximately 1.6 million people living near TSFs. In the EAP’s response to the FSE’s comments (para 6.4), the EAP referred the FSE to “Section 14, References: Winde F:” In chapter 13 (“Referencing”) of the Final Environmental Impact Assessment Report we failed to find the reference to Prof. Dr. Frank Winde’s Report.

In order to assist, we attach hereunder the relevant Report.



2013-10-07 F  
Winde - inaugural l

The Report is titled: “Uranium pollution of water – a global perspective on the situation in South Africa”. It is dated 2013.

Please see page 27 of the attached Report. The source of the statement is attributed to the FSE and reads “FSE (Federation for a Sustainable Environment) (2012): Tour of the West Rand Goldfields, 12 November 2012, Agenda, prepared for visitors of the Heinrich Böll Stiftung Germany, 17 pp., unpublished”

We wish to advise that the FSE subsequently revised the statement to read:

**It is estimated that 25 percent of the population in Johannesburg and Ekurhuleni live in informal settlements, and approximately one quarter of them, 400,000 people, are in the mining belt and not the reported 1.6 million people. The settlements range from 100 to 40,000 people, with the largest communities in Ekurhuleni (Ref. Tang, D & Watkins, A 2011, ‘Ecologies of Gold: The Past and Future Mining Landscapes of Johannesburg’, Places Journal, <https://placesjournal.org/article/ecologies-of-gold-mining-landscapes-of-johannesburg/?cn-reloaded=1#0> t**

We suggest that the revised statement be used in the Final Environmental Impact Assessment Report.

## COMMENTS ON SELECTED EXTRACTS OF THE REVISED DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT/FINAL ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Kindly advise the correct title of the Report. The Report is titled “Revised Draft Environmental Impact Assessment Report from page i to page 29 and from page 30 it is titled “Final Environmental Impact Assessment Report”. Are the two Reports linked?

We found the layout of the Report difficult to follow. It may be attributable to our own insufficiencies. We shall appreciate assistance in this regard.

### Technology to be used

On page vii of the Revised Draft Environmental Impact Assessment Report we are advised that mechanical excavation of the tailings is the preferred technology since hydraulic removal of the silts can cause irreversible water contamination.

While we concur that the introduction of air and water into anaerobic tailings (silts) is likely to introduce large volumes of additional water into highly disturbed areas, which may exacerbate the risks attributed to Acid Mine Drainage (AMD), we wish to advise that in other reclamation applications within the West and Far West Rand gold fields hydraulic removal of the silts are advocated as the best practical environmental option (BPEO) since the wetting of the tailings reduces dust fallout.

### Biodiversity and Wetlands

On page 115 of the Final Environmental Impact Assessment Report the wetland areas are classified as high sensitivity areas that are still a viable habitat for some species. Page 96 of the Report states that “the project area falls within ecosystems which are listed as Endangered” and in close proximity to a number of unclassified Freshwater Ecosystem Priority Area (FEPA) wetlands.

We noted that:

- none of the bird species within the project area are of conservation concern;
- it is unlikely that the endangered Giant Bull Frog occurs in the project area; and
- no mammal species were observed in the project area during the site visit.

**With reference to the last bullet point: The absence of mammal species is ascribed to the large number of hunting/feral dogs that were observed on the project area. Besides the subjoined mitigation measures, we strongly recommend that the Applicant involves the NSPCA in the mitigation of this impact. The welfare problems for hunting dogs within mining areas as well as the welfare problems for their prey and the misery which they cause the victims was highlighted in a 2017 court case in the Western Cape. According to the then Chairperson of the Endangered Wildlife Trust, Dr John Ledger in 1998, hunting with dogs poses the greatest threat to the biodiversity of Africa.**

The mitigation measures which are proposed during all phases of the project in the Final Environmental Impact Assessment Report include *inter alia*:

- If any faunal are recorded during construction, activities should temporarily cease and time permitted for the species to move away. In the event the species does not move away (voluntarily), the species must be removed safely from the area and relocated to a suitable area that will not be directly disturbed by the project;
- Fauna species such as frogs and reptiles that have not moved away should be carefully and safely removed to a suitable location beyond the extent of the development footprint by a suitably qualified ECO trained in the handling and relocation of animals;
- The intentional killing of any animals including snakes, insects, lizards, birds or other animals should be strictly prohibited.

While the recommendations are laudable, we express concern regarding whether these mitigation measures will be complied with and whether non-compliance with these mitigation measures will be enforced since it is common cause that the Department of Mineral Resources (the competent authority) lacks capacity, political will and commitment<sup>2</sup>.

We recommend the training of operators and workers and the appointment of community monitors, civil society groups or NGOs within the Riverlea Community to assist with the monitoring of these mitigation measures.

Page 215 furthermore recommends rehabilitation of the recently completed area as the operation progresses. This recommendation finds support in the proposed Regulations pertaining to Financial Provisioning for the Rehabilitation and Remediation of Environmental Damage caused by Reconnaissance, Prospecting, Exploration, Mining or Production Operations which direct that “every applicant and holder has an obligation to plan, manage and implement such procedures and requirements in respect of **progressive** rehabilitation...”.

(Emphasis added.)

It is imperative that the Applicant produces physical (real) evidence of such progressive or concurrent rehabilitation during its operations.

### Groundwater

We are informed on page 273 that “there is currently not enough groundwater data available for the Valley Silts area, along the Russell Stream”; on page 274 that “there is currently no information available to assess the interaction between groundwater and surface water as well as the wetlands with any confidence”; and on page 228 that “there is currently insufficient information available to estimate the salt load on this wetland [situated to the east of the Valley Silts project] as a result of potentially contamination groundwater baseflow components.”

Page 142 (para 7.7.7) informs us that that there is a “limited amount of information available to characterise the aquifers present in the immediate vicinity of the Russell Stream” and that as a result “the model capability will be constrained.”

---

<sup>2</sup> Please refer to findings and recommendations of the South African Human Rights Commissions Report pursuant to its National Hearing on the Underlying Socio-Economic Challenges of Mining Affected Communities in South Africa.

In order to address the abovementioned gaps in “crucial” information it is recommended that *inter alia*:

- “Dedicated monitoring boreholes are drilled along and downstream of the Russell Stream for monitoring purposes, **before** the desilting activities start, to define the pre-excavation status.”
- “Aquifer parameters need to be established” prior to the commencement of the project.
- “Cut-off trenches and berms are put in place between the Valley Silts project area and the historical TSFs” prior to the commencement of the project.
- The salt load on the wetlands situated to the east of the Valley Silts project be determined prior to the commencement of the project.

(Emphasis added).

**We recommend that the Project should not proceed until these gaps in information are addressed.**

The Final Environmental Impact Assessment Report recommends that “pooling of water must not be allowed on open surface, **except if lined.**” (Emphasis added.) We recommend that cut-off trenches be lined in addition to open surface areas in order to prevent seepage of polluted water into the void.

Page 128 of the Final Environmental Impact Assessment Report furthermore advises that “as mining progresses, paddocks will be established to contain and evaporate water within the mine-out reclamation area”. For the paddocks to be effective, it must be regularly desilted and if possible, lined in order to prevent seepage into the aquifers.

On page 275 it is recommended that excavated silt and any water must be removed from open and exposed formation surfaces **as soon as possible** to avoid seepage of contaminated water into the shallow weathered and deeper aquifers.” (Emphasis added.)

Conversely, on page 229, it is recommended that: “If rainwater is present and does not evaporate **within a few weeks**, then the paddocks are to be pumped prior to AMD forming.” (Emphasis added.)

**According to our understanding AMD forms when rainwater containing oxygen interacts with the pyritic material in the silts. We do not consider the allowance of a few weeks of evaporation as a responsible management measure to mitigate the formation of AMD. We recommend that ponded rainwater be pumped from paddocks “as soon as possible.”**

The Wetlands Report furthermore recommends the conducting of “a toxicological risk assessment to identify the location and intensity of contaminants on site” (page 215 of the Final Environmental Impact Assessment Report). We recommend that this assessment be conducted prior to the commencement of the operations.

Surface Water

The FSE acknowledges, with thanks, the inclusion of the Council for Geoscience Wetlands Report, dated 2005 in the Final Environmental Impact Assessment Report (page 122, para 7.6.2.3).

We concur with the findings that “under neutral water conditions, the remobilisation of metals is low, whereas under acidic or oxidising conditions, the remobilisation of metals from wetland is possible.” Page 127 of the Final Environmental Impact Assessment Report informs us that “the excavation of silt from the reclamation area, will trigger oxidation reactions that could result in acidic conditions and leaching of salts and metals and that similar conditions are expected at the stockpiling area, with the drying of the silt.”

It is for the abovementioned reasons that the FSE strongly advocates for the diligent implementation of the mitigation measures during the operational phase of the proposed project and **for public disclosure of the water quality results on the Applicant’s website, or on request and/or at Catchment Management Forums.**

#### Selective remediation

According to Page 189 (7.11.6): “Stakeholders must be informed that **only portions** of Russell Stream will be remediated...expectation should be managed.”

And Page viii: “The expected indirect benefits resulting from the Valley Silts Project include: The rehabilitation of **target areas** in the Russell Stream.”

(Emphasis added.)

**We infer from the above-mentioned statements that the entire Russell Stream (Klip Spruit) will not be remediated but only selected areas, which contain viable deposits of gold. It follows hence that the said mining area after the decommissioning of the project will still contain sources of pollution, which will continue to impact adversely on the wetlands and ecosystems and water quality.**

#### Reference sources

Page ix of the Revised Draft Environmental Impact Assessment Report refers to the objectives of the Gauteng Mine Residue Area Strategy of 2012. The FSE was a member of the Strategy Steering Committee but is in possession of a 2011 copy and not a 2012 copy of the Strategy. Please see attached.



GDARD MRAs  
Strategy Final 20110

Please advise if this is the Strategy, which is referred to on page ix of the Revised Draft Environmental Impact Assessment Report.

SUBMITTED BY:

Mariette Liefferink

CEO: FEDERATION FOR A SUSTAINABLE ENVIRONMENT

31 March 2020.