



the federation for a sustainable environment

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COMMENTS ON NATIONAL GUIDELINE ON MINIMUM INFORMATION
REQUIREMENTS FOR PREPARING ENVIRONMENTAL IMPACT ASSESSMENTS
FOR MINING ACTIVITIES THAT REQUIRE ENVIRONMENTAL AUTHORISATION

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 a member of a significant number of governmental and academic forums, steering committees, task teams and teams of experts and its directors have two decades of experience with mining applications and environmental impact assessment processes.

Requirements for Assessing Impacts

In the current system the public is usually, when confronted by an application, taken by surprise. A meeting is convened by the applicant and the public has to face a range of specialists, specialising in inter alia fauna and flora, geohydrology, aquatic biota, hydrology, groundwater, soil, air quality, geology, etc. supporting the applicant and being paid for by the applicant. Their objective is not only to fulfil their roles as specialists, but also ensure that the application is successful.

The playing field is not level. The public has no confidence in the process. It results in confrontation and escalation of conflict. This is a normal human response. By addressing the process, giving all in the process confidence in the fairness of the process and making it easier for the decision maker to adjudicate applications, we believe that the EIA process will be enhanced and made much more efficient if the “playing field is levelled.”

As stated above currently all of the power lies with the Applicant. The Applicant pays for the consultants and the Environmental Assessment Practitioner (EAP), whilst the public lacks knowledge of specialised areas of investigation, the ability or capacity to employ specialists and thus the ability to consult in a meaningful manner. In essence, the decision maker receives one informed side of the argument and one uninformed side of the opinion. It is our submission that in order to ensure a meaningful consultation process the levelling of the playing field should be engineered.

Consultation can best be described as the reciprocal and meaningful exchange/communication of ideas and opinions based on sufficient information and sufficient time. There must be a reasonable opportunity to exchange the ideas and opinions, and not a mere opportunity to make ineffective contributions.

Specialists are furthermore afraid of retribution from applicants and industries if they do not come to the conclusions that are in their clients’ favour. There are cases of “black listing” by certain applicants of specialists that have cooperated with us in the past.

The cost of review applications and appeals are in most instances prohibitive for most communities since expert legal and subject advice have to be obtained to make effective representations.

The following proposals are put forward:

1. It is proposed that in applications with significant potential impact and where the specific activity is deemed inappropriate for that geographical area (e.g. in protected areas, areas of highest and high biodiversity importance):
 - a. The applicant must provide a specialist/EAP for the public to enable them to have confidence in the process. Knowledge capacitates and empowers the public.
 - b. The appointed EAPs must be paid for by a body other than the applicant but with the funds of the applicant. The money and the opinion must be divorced.
2. The specialist/EAP will then also provide a detailed assessment, based on the information gathered by the applicant, to the decision maker. This will constitute a peer review of the information and will assist the decision maker in his/her decision.
3. The decision maker will then have two opinions, which may converge or diverge, before him/her and will be in the position to ground his/her decision on more than just the opinion of the applicant’s specialists, which is the considered opinion of only one side of the argument.

4. Mediation must take place where EAPs are of a different point of view. This must however be a short and inexpensive process.
5. The independence/professionalism of EAPs and specialists must be strengthened and they must be able to state their minds without fear of retribution from the specific applicant or industry. A method has to be found whereby EAPs and specialists will be appointed based on their willingness to do the work and by a process other than appointment and remuneration by the applicant. This is to ensure that the relationship between applicant and specialist stay at arm's length and affords the specialist the opportunity to come to conclusions without fear of retribution from a specific applicant or industry. This can be done by means of:
 - a. A method of appointment via rotational basis from a pool; and/or
 - b. By selection from both the public and the applicant;
 - c. Or any other method than the current where the specialist and EAPs are dependent on business from the same industries they are acting on behalf of. This is not unprecedented in the country today hence it will not be difficult or impossible to implement such a system. To exemplify: The labour court's arbitration system whereby a panel is appointed independently, paid for by the party and the arbitrator can deliver its verdict without fearing retribution in the future from the aggrieved party.

By implementing the above it is our submission that the confrontational nature of the EIA system will be neutralised. The public will have confidence that an independent specialist will assist them; that the EAPs are independently paid for and will be neutral and state their true opinion without fear; disagreements will be addressed early in the process by means of mediation and the decision maker will have two opinions available to guide him/her in his/her decision. It will then be very difficult for any party to go on appeal or review on the substantive facts in any matter and this will eliminate the most cumbersome and difficult part of the EIA process.

Monitoring of Impact Management Actions

While the recommended management actions and monitoring programmes in an EIA may result in the mitigation of significant impacts, the systemic failure by the Department of Mineral Resources (DMR), the DEA, the DWS and local authorities (where it overlaps with the mandates of the Department of Environmental Affairs, the Department of Water and Sanitation and local authorities) to ensure that mitigation and management measures are adequately implemented and non-compliances are enforced, has resulted in the degradation of land, soil, surface and groundwater.

Audits exist in vain if it is not followed by enforcement (e.g. pre-directives, directives, criminal prosecution, suspension or withdrawal of mining rights/permits).

Monitoring programmes must translate in the implementation of management or mitigation measures. Monitoring results showing non-compliances and contamination and alteration of

surface water courses, tailings spillages, soil and groundwater contamination, land degradation, elevated levels of dust fallout, erosion, etc. are of no value unless it is acted upon and the impacts remediated or mitigated.

The sampling programmes employed by the mining industry and Government to monitor pollution are often inadequate. To exemplify: In view of frequently drastic short-term fluctuations of pollution levels caused by day-night rhythms of discharging mine effluents, natural diurnal fluctuations of water chemistry as well as events such as rainstorms and spillages monthly or weekly sampling intervals are inadequate. This is illustrated by the fact that uranium-levels in samples used in IWQS (1999) from identical sites (normally sampled at the same day of the week and the more or less the same time of the day) at some locations fluctuate by up to a factor of 1000 (i.e. 100000%). It is furthermore of concern that because of budget considerations, only a few variables are sampled notwithstanding the fact that mine effluent and waste contain a broad spectrum of metals in elevated concentrations.

(Reference: F Winde. Development of a map ranking sites with known radioactive pollution in the Wonderfonteinpruit catchment according to the urgency of required intervention. Underlying methodology and results. Wonderfonteinpruit Catchment Area: Remediation Action Plan. 2009.)

Impact Identification and Assessment

The prescribed time frame to conduct the EIA is resulting in accelerated EIAs which compromises the assessment of ecosystem goods, flora and fauna, biodiversity and hydrology. The influence of seasonality on detection of flora and fauna, and evaluation of biodiversity, is well recognised worldwide. For example, within the Grassland Biome, most plant species and small fauna experience seasonal dormancy, whereas some avian species are migratory. At worst, if not conducted in appropriate seasons and for biologically relevant time periods, the EIA could under-represent biodiversity by almost 95%. Assessment of hydrology requires a full hydrological cycle. Ecosystem goods and services could be similarly compromised by the accelerated EIA. A preliminary conservative estimate of the value of ecosystem services in South African grasslands is SAR9.7 billion per annum (2006 statistics). With respect to social aspects, rural and urban livelihoods of the poor in South Africa are highly dependent on ecosystem goods, and potential impacts on community resource bases can hardly be assessed with such short time periods.

Furthermore in the impact identification and assessment, an equal weight ought to be given to imported scientific knowledge *and* local and traditional knowledge. Please see section 2 (4) (g) of the NEMA.

Conceptual Closure Planning

Closure plans and future land use options must ensure that current rehabilitation practices are not short-sighted or incompatible with end land-uses and municipal development plans. Residential townships, edible crop production and livestock grazing are high risk land uses

for tailings storage facilities (TSFs), TSF footprints and areas within the aqueous or aerial zone of influence of TSFs and metallurgical plants in South Africa. Failure to implement suitable ‘soft’ end land-uses and buffer zones could exacerbate liabilities for closing mines and/or the State by resulting in subsequent land-uses that are sub-economic or risky.

In order to adequately address residual and latent impacts and liabilities and to determine the financial provision¹, it is recommended that mining operations in South Africa adopt the precautionary approach.

Within the gold mining industry e.g. there is:

- The near certainty of contaminated water, which will require some form of decontamination treatment, decanting from closed underground mines, or from lower-lying interconnected neighbouring mines;
- The near certainty of sulphate, chloride, metal and Naturally Occurring Radioactive Materials (NORM) and Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) contamination of soils and sediments by seepage from unlined tailings storage facilities (TSFs), tailings spillages and plant discharges, and the potential for contamination of downstream /downwind soils and sediments;
- The near certainty of sulphate, chloride, metal, NORMS and TENORMs contamination of surface water bodies and their sediments and ground water by seepage from unlined TSFs, tailings spillages, plant discharges and underground workings. In addition the potential contamination of surface soils overlying shallow polluted groundwater via evaporative pathways during dry seasons;
- The potential for salt, sulphate, chloride, metal, NORMs and TENORMs contamination of crop soils irrigated with contaminated surface water or contaminated groundwater;
- The concomitant loss of genetic/biodiversity and potentially ecosystem goods and services on disturbed, fragmented or polluted properties;
- The potential for bioaccumulation of some metals, NORMs and TENORMs by flora and fauna;
- The potential for exposure of fauna and humans to bio-accumulated pollutants;
- The potential for acute and latent toxicity impacts of bio-accumulated pollutants on humans and the potential for radioactivity impacts from NORMs and TENORMs on humans;
- The potential for human disease as a result of exposure to wind-blown dust from TSFs;
- The potential for structural damage to buildings and other structures, and human injury by mining exacerbated seismicity.

¹ We take cognisance of the fact that the MIR does not currently provide guidance on financial provision.

Restoration and rehabilitation are dynamic processes that span long periods of time. However, some degradation associated with mining is irreversible from an ecological perspective. This possibility that some damage may be irreversible and hence require long-term site containment and financial provision, and/or compensation, and/or the replacement of land to affected parties ought to be assessed and included in the closure plan.

(Reference: MW Sutton, IM Weiersbye. South African Legislation Pertinent to Gold Mine Closure and Residual Risk. Mine Closure 2007 – A.Fourie, M. Tibbett and J. Wiertz (eds). 2007 Australian Centre for Geomechanics, Perth, ISBN 978-0-9804185-0-7.)

Need and Desirability

We recommend that a comprehensive cost/benefit analysis be conducted as part of the need and desirability of a mining project to determine the best practicable environmental option. The analysis should include medium/long term costs and impacts, intra- and inter-generational equity and not only short term socio-economic benefits.

While economic benefits may flow to communities during the life time of a mine, future generations may well have their livelihood opportunities and their quality of life reduced by the future post-closure land use because polluted water and soil, profound or irreversible impacts on ecosystems and biodiversity. These unintended outcomes worsen poverty.

The cost associated with the rehabilitation of mining operations after decommissioning, including the cost to human and environmental health and the social legacy of people employed, supported and attracted to the mine and its surrounding areas must be factored in in the an cost/benefit analysis. It should be recognised that environmental impacts of mining are cumulative and typically require several decades to take effect.

A comprehensive cost/benefit analysis is of particular importance if mining is applied for in a sensitive area. The balancing of the negative environmental impacts versus the alleged short term social benefits (which have not accrued in the last period of mining to the local communities) and the economic advantages can only be assessed if the loss to the environment are evaluated.

Environmental Instruments and Tools

EIAs frequently fail to adequately incorporate and address the following decision making instruments:

Mining and Biodiversity Guideline

While EIAs may refer to the Mining and Biodiversity Guideline, the recommendations are not always followed. Mining is prohibited in legally protected areas. For areas of highest biodiversity the Guideline recommend that *“an EIA should include the strategic assessment of optimum, sustainable land use for a particular area and will determine the significance of the impact on biodiversity. This assessment should fully 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:

- a. 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.
- b. There are no alternative deposits or reserves that could be exploited in areas that are not biodiversity priority areas or less environmentally sensitive areas.
- c. 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.
- d. 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.
- e. 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.
- f. 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”.

The EIA ought to be compiled so as to give effect to the Guideline.

The fact is that certain metals and minerals such as coal, sand, fluorspar, platinum is plentiful in South Africa, it is overproduced and the sensitive environment is neither of the aforesaid. It is not possible to make an informed decision due to lack of information dealing specifically with the matters raised in the Mining Biodiversity Guideline.

This includes an assessment of the opportunity costs, e.g.

- o Understanding the value of the foregone opportunity;
- o The achievement of the desired aim/goal for the specific area;
- o Optimising of positive impacts;
- o Minimising of negative impacts;
- o Equitable distribution of impacts; and
- o The maintenance of ecological integrity and environmental quality.

The Guideline recommends that the authorisation for mining in highest biodiversity important areas may specify **biodiversity offsets** that would be written into licence agreements and/or authorisations.

For areas of high biodiversity importance, the EIA should include an assessment of optimum, sustainable land use for a particular area and will determine the significance of the impact on biodiversity according to the Mining and Biodiversity Guideline.

MPRDA section 48 and Section 48 of NEMPAA

In terms of section 48 of the MPRDA it gives a list wherein no mining can take place and is further qualified by two important factors 1) subject to the permission given by the Minister for Mineral Resources and 2) subject to section 48 of the NEMPAA (protected areas act).

The list in the MPRDA is as follows:

- Land comprising a residential area;
- Any public road, railway, cemetery;
- Any land being used for public or government purpose or reserved in terms of any other law (this is important as we read this since it excludes NEMPAA due to the fact that it specially mentioned in the section 48(1) – further explanation will be given below); or
- Areas identified by the Minister by notice in the Gazette in terms of section 49.

NEMPAA section 48:

Section 48 of NEMPAA pertains to mining activities specifically. Section 48 also gives a list of when a mining activity is not allowed to be undertaken. In terms of the main body what is

important to note is that section 48 states the following words, “despite other legislation” (this qualifies section 48 of the MPRDA) no person may conduct commercial prospecting...”

The list in NEMPAA is as follows:

- In a special nature reserve, national park, or nature reserve;
- In a protected environment without the written permission of the minister and the cabinet member responsible for mining and energy affairs; or
- In a protected area referred to in section 9(b), (c) or (d).

It is important at this juncture that we look at the first listed prohibition. i.e. “in special nature reserve, national park or nature reserve.

In terms of this first prohibition – special nature reserve, national park or nature reserve (as declared by the NEMPAA or other acts) cannot be mined on AND there is no qualification to allow the mine to ask for permission.

Case law (please note this is not a close list):

Barberton Mine Case – SCA – <http://wessalovveld.co.za/wp-content/uploads/2017/03/BARBERTON-MINES-CASE-JUDGEMENT.pdf>

NEMPAA binds all organs of states (s4(2)) and trumps other legislation in the event of a conflict concerning the management or development of protected areas (s7(1)(a)).

In terms of section 12 – a protected area that was reserved or protected in terms of provincial legislation is entitled to be regarded as a nature reserve or protected environment for the purposes of NEMPAA.

National Biodiversity Offset Policy

Notwithstanding the publishing of the Policy, the use of offsets has frequently been inadequate to deliver intended biodiversity outcomes. Challenges include:

- insufficient capacity to evaluate, design and implement offsets;
- inconsistent decision-making;
- problems establishing sustainable financing mechanisms; and
- inadequate enforcement and monitoring, linked to poor drafting of licencing conditions and/or insufficient capacity to monitor implementation.

Sense of Place

We furthermore recommend the consideration of the guideline on “Sense of Place” since it is part our law that the potential impact of a development on the sense of place of an area must be considered. In the case of *Director: Mineral Development Gauteng Region and another v. Save the Vaal Environment and others* 1999 (2) SA 709 (SCA) at 715C, the Supreme Court

of Appeals with regard to a proposed mine on a wetland next to the Vaal River, identified as an environmental concern the “...*predicted constant noise, light, dust and water pollution resulting from the proposed strip mine will totally destroy the ‘sense of place; of the wetland and the associated Cloudy Creek. Thus the spiritual aesthetic and therapeutic qualities associated with this area will also be eliminated.’*”

This finding by the court established sense of place, as an environmental concern that can be impacted upon by the development of a mine and that should be considered accordingly.

Lack of decisive language

In terms of Section 24O(1)(b)(viii) of NEMA, it is the responsibility of the competent authority to take into consideration *all* of the “guidelines, departmental policies, and environmental management instruments that have been adopted” when an environmental authorisation is required for mining activities². Full consideration of all the criteria informs good decision making, and stimulates mining activities that adhere to national socio-economic and environmental objectives.

The 2014 EIA Regulations, Section 18, reinforces the necessity of inclusion of the related guiding material, such as; minimum information requirements, protocol and Regulations which are relevant to the application³. These instruments are essential for accountability and sustainability within the mining sector.

Furthermore, the stringency of terminology for the proposed national guideline is fundamental to the sequencing of environmental authorisation. As the applications have previously been complicated and lengthy, clarity is needed not only in procedure, but also in the letter of the law to ensure efficiency and compliance.

1. The terminology used throughout the National Guidelines is often framed as suggestive rather than authoritative. The objective of the National Guideline is to provide clarity for the best practice for granting an EIA, in order to do so; the terminology must be precise and unambiguous.

² Sec 24O(1)(b)(viii) of NEMA

³ Sec 18 EIA Regulations of 2014

2. Section 24O(1) of the National Environmental Management Act 107 of 1998 requires “all relevant factors” to be taken into account when consideration is given to an application for environmental authorisation. Section 24O(1)(b)(viii) of NEMA states that these factors may include ‘guidelines, departmental policies, and environmental management instruments that have been adopted’. The obligatory requirements attached to section 24O are indicative of the necessity of guidelines to be taken into account when environmental authorisation is required for mining activities.
3. If the guidelines upon which decision makers are to take into account are merely subjective it defeats the purpose of creating a document that seeks to streamline the EIA process, and provide uniform guidance to the competent authorities.
4. The 2014 Environmental Impact Assessment Regulations (“EIA Regulations”) gives further guidance to the criteria to be taken into account by competent authorities when considering applications. Section 18 of the EIA Regulations states:

‘When considering an application the competent authority must have regard to section 24O and 24(4) of the Act, the need for and desirability of the undertaking of the proposed activity, any guideline published in terms of section 24J of the Act and any minimum information requirements for the application.’
5. Similarly to NEMA, the EIA Regulations make it clear that there are certain minimum requirements that need to be considered when granting authorization.
6. Critiques of the 2014 amendments to legislation, regarding Environmental Authorisation for EIA’s have systematically alluded to ambiguity of operational procedures and systems in the *One Environmental System*.⁴ The proposed national guideline has the opportunity to offer clarity and facilitate more informed, ecologically responsible EIAs.

⁴Government’s One Environmental System (9 December 2014) available at: <https://www.environment.gov.za/mediarelease/oneenvironmentalsystem> accessed on 6 March 2018.

7. The stringency of terminology for the proposed national guideline is fundamental to the sequencing of environmental authorisation. As the applications have previously been complicated and lengthy, clarity is needed not only in procedure, but also in letter of the law to ensure efficiency and compliance.
8. Full consideration of all the criteria informs good decision making, and stimulates mining activities that adhere to national socio-economic and environmental objectives.
9. Conclusion on terminology that is imprecise - In total there are 65 incidents of vague terminology identified herein which have the potential to be subjectively interpreted. As this document is proposed as best practice guidance for activities which are inherently high impact, stringent guidelines are essential.

Open Source Access to EIA Information

10. To fully exercise civil rights and interact in a meaningful way with activities effecting a community's environment, convenient and reasonable access to EIA information is needed.⁵
11. The Promotion of Access to Information Act 2 of 2000 ("PAIA") operates within the framework of the Constitution, that citizens have the right to access to information that has a bearing on their environment.⁶ There is an undeniable need to enforce this right and promote access to information which enables transparency. The PAIA is intended to encourage public access to information in a manner that is simple and convenient.
12. Information is currently published through gazetting, national and/or regional newspapers and leaves a large part of the population without reasonable access.
13. Public participation is only as fruitful as the information held by each attending party. An I&AP, as an individual or group who is willing to actively participate in stakeholder engagement would be better informed and able to act more decisively. This can

⁵ NEMA at section 23(2)(d).

⁶ PAIA at section 70 (a)(ii).

potentially expedite the process of public participation, making the forecasting of risks and impacts more thorough.

14. Information is fundamental to the ability to exercise ones' constitutional rights in a healthy democracy. Enabling online instant public access is the medium for mobilising that right. Mining activities have been historically plagued with a lack of accountability and environmental degradation, which are predominantly borne by poor and marginalised communities.
15. By facilitating online access to EIA information, there is an opportunity for citizen empowerment and a greater ability for the mining sector to manage and mitigate the impact of their activities. More information can foster greater management and adaptation measures for all stakeholders.

SUBMITTED BY:

A handwritten signature in black ink, appearing to read 'M. Liefferink'.

Mariette Liefferink.

CEO: FEDERATION FOR A SUSTAINABLE ENVIRONMENT.

11 March 2018.