



deVilliers Brownlie Associates

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TO WHOM IT MAY CONCERN

I am a professionally registered Environmental Scientist and Environmental Assessment Practitioner, with almost 40 years of experience in the field of environmental assessment and management. This letter gives my professional opinion on the environmental impact assessment documentation prepared for the Musina-Makhado Special Economic Zone.

A Special Economic Zone (SEZ) is a geographically designated area set aside for specifically targeted economic activities. That is, the SEZ economic activities proposed, and their impacts, are an integral and inseparable part of the development.

The Final Environmental Impact Assessment Report (EIR) prepared by EnviroXcellence (13 September 2021) for the Musina-Makhado SEZ site notes a number of applicable triggers in Listing Notice 2 of the NEMA EIA Regulations of 2014, as amended. Therefore, the EIR is required to provide a description of the associated structures and infrastructure related to the development, and identify, assess and rank impacts of that development 'through the life of the activity'¹.

1. The scope of the EIA is not clear and sends conflicting messages that the report relates only to vegetation clearing and installation of bulk services and fencing, while the range of specialist assessments goes far beyond these activities in partial compliance with the requirements of the NEMA EIA Regulations.
 - a) In places, the EIR states that the assessment looks at land clearance and service infrastructure², specifically relates to the EIA application for the authorisation to clear limited vegetation for the construction and installation of bulk services infrastructure and fencing of the SEZ South Site³, referring to the future industrial operational phase as 'not part of this EIA'⁴
 - b) Elsewhere, it is stated that '...the impact assessment is based on the construction and operational phase'⁵ and that 'a holistic view was also undertaken for the full life of the MMSEZ South site for key aspects'⁶, and 'The impact assessment does include the cumulative impacts associated with such a proposed development for each specialist study and all plants together'⁷.

In my professional opinion, it is disingenuous to limit the assessment of potential environmental impacts and risks of the SEZ to 'limited vegetation clearance for bulk service and fencing' only, and on that basis for the EAP to conclude that the proposed SEZ will not significantly impact on the environment and its surrounding land uses⁸. The clearing of vegetation and erection of fencing to enable the SEZ development is simply a precursor of activities which have a wide range of potentially highly significant consequences.

In my view, it is rationally not defensible to authorise vegetation clearing and erection of fencing and to rely on future EIAs on the individual industrial components to address impacts and risks effectively. Such

¹ Appendix 3 of NEMA EIA Regulations, 2014 as amended

² Section 6.1 of Final EIR by EnviroXcellence

³ Executive Summary of Final EIR by EnviroXcellence

⁴ p462 of Final EIR by EnviroXcellence

⁵ p257 of Final EIR by EnviroXcellence

⁶ pvii of Final EIR by EnviroXcellence

⁷ Section 6.1 of Final EIR EnviroXcellence

⁸ p919 of Final EIR EnviroXcellence

an approach would prevent due and appropriate rational consideration of the ecological, health, heritage, social and economic consequences of authorising the SEZ. It is crucial in the case of the SEZ is to assess the likely combined impacts of all envisaged SEZ components (coking plant, thermal power plant, ferrochrome, ferromanganese, ferrosilicone, steel, stainless steel, lime, commercial/ residential, living area, etc), to enable reliable evaluation of probable cumulative impacts at scale; it is internationally recognised that the assessment and management of cumulative impacts is best undertaken at a strategic, not project, level.

2. A number of important gaps in information were flagged in the Delta Built Environmental Consultants (BEC) Final EIR, prepared in February 2021. While the EnviroXcellence Final EIR has supplemented the information through a number of updated or additional specialist reports, serious gaps remain. In particular, information on water resources and water supply, on ecosystem services and on social impacts remain. In addition, while socioeconomic specialist studies and a Cost-benefit Analysis were undertaken, these studies are narrowly interpreted and provide an inadequate basis for decision making.

Need and desirability of development is a key component of any EIA. When considering an application for environmental authorisation, due regard must be had for the national Guideline on Need and Desirability (Department of 2017). This Guideline stipulates that environmental integrity may never be compromised and the social and economic development must take a certain form and meet certain specific objectives in order for it to be considered justifiable⁹.

The documentation provided to date fails to demonstrate that environmental integrity would not be compromised, and that net socioeconomic impacts would be positive; i.e. that the SEZ would be ecologically sustainable and socially and economically justifiable.

3. Water supply and energy are 'critical success factors' for the SEZ. The Final EIR with its range of specialist studies serves to highlight serious risks that the proposed suite of economic activities cannot be supported because there are major uncertainties about securing water and energy. Securing these essential inputs in turn, is linked to potentially severe consequences for both the environment and affected people (for water supply, potentially affecting both South Africa and Zimbabwe), over and above the potentially significant implications of impacts of the proposed industrial activities themselves.

While three main water supply options are planned, there is minimal information on these options and/ or the likelihood of either their suitability or sufficiency. Likewise, there is minimal information on energy supply options and, with emphasis on coal as a fuel, the environmental, health and climate change issues remain a grave concern.

Given the major uncertainties involved, and the potential for serious harm, the precautionary principle must be applied, and a risk-averse and cautious approach adopted to decision making in line with section 2 of NEMA.

4. The procedure followed in the EIA process is contrary to the legal provisions set out in the NEMA EIA Regulations.

There is no legal provision for a competent environmental authority to request more information once a Final EIR has been submitted; that authority must either accept or refuse the application for environmental authorisation. It is thus questionable how EnviroXcellence was appointed and an extension to the timeframe for finalising the EIR was given, when such extension was refused to the original consultants, Delta BEC. According to EnviroXcellence' report, 'The Final EIAR was submitted to LEDET on 1 February 2021. The Final EIR was reviewed by the CA identified some information gaps and requested additional studies, more PPP and a revised EIAR'¹⁰.

5. Feasible and reasonable alternatives to the proposed SEZ, both in terms of its location and components, have not been adequately assessed and do not meet the requirements of the NEMA EIA Regulations in arriving at a best practicable environmental option. Location alternatives were considered at high level from an economic perspective only; options for industrial components do not appear to have been addressed.

⁹ Section 5 of National Guideline on Need and Desirability 2017.

¹⁰ pvii of Final EIR by EnviroXcellence

6. In conclusion, the Final EIR prepared by EnviroXcellence, has not materially changed the findings of the Final EIR prepared by Delta Built Environmental Consultants (BEC) in February 2021, or supplied the information needed to answer some of the key outstanding issues and concerns.

The statement of Delta BEC that 'Overall, the impacts before applying mitigation as well as after applying mitigation during the operational phase of the SEZ development will in all likelihood be negative to the site. Mitigation measures can be applied, but the significant impacts on climate change, air quality, water supply, waste and human health if best practice and international standards and laws are not undertaken and adhered to, will be significant'¹¹ remains apposite.

As such, it is my professional opinion that, over and above the procedural irregularities noted in 4. above, the information provided in the Final EIR prepared by EnviroExcellence is not adequate or complete for decision-making purposes, as it does not meet the requirements of the NEMA or the EIA Regulations, and is not consistent with the applicable guidelines such as the national Guideline on Need and Desirability.

Yours sincerely

deVilliers Brownlie Associates

A handwritten signature in black ink, appearing to read 'SB Brownlie', with a long horizontal line extending from the end of the name.

Susan F Brownlie

¹¹ pxvii of Final EIR Delta BEC Feb 2021