5 February 2024

Attention: Interested & Affected Party

SLR Project No.: 720.10023.00001

Client Reference No.: DMRE KZN 30/5/1/2/2/10108MR

Re: Notification: Jindal Iron Ore Mine EIA DMRE Decision & Appeal Process

Dear Interested and Affected Party

Application for an Environmental Authorisation in Terms of the National Environmental Management Act, 1998 (NEMA) as Amended for a Mining Right by Jindal Iron Ore (Pty) Ltd, King Cetshwayo, within the Kwazulu Natal (KZN) Region

Project Background

Jindal Iron Ore (Pty) Ltd (Jindal), is owned by Jindal Steel and Power (Mauritius) Limited (74%) and a South African BBBEE partner, Mr. Thabang Khomo (26%). Jindal holds two Prospecting Rights (PR) within the Mthonjaneni Local Municipality (LM) in KZN. The North Block (PR 10644) is 8 467 ha and the South Block (PR 10652) is 11 703 ha in extent. Jindal had previously prospected in these PR areas, but suspended the project in 2016. Jindal then restarted the Mining Right Application process in 2021 and the Environmental Impact Assessment (EIA) Report and Waste Management Licence Application were submitted to the KZN DMRE on 16 October 2023 for their review and decision making.

The Jindal MIOP site is located 25 km southeast of Melmoth, within the Mthonjaneni Local Municipality in the KZN Province of South Africa. Jindal is proposing to develop an open pit iron ore mine and processing facility on the site to extract 32 million tonnes per annum (mtpa) of iron ore which would be processed on site to produce approximately 7 mtpa of iron ore concentrate.

Jindal appointed SLR Consulting (South Africa) (Pty) Ltd as the independent Environmental Assessment Practitioner to undertake the EIA process and the associated public participation process (PPP) to inform the MRA.

DMRE Decision

With reference to the above-mentioned application, please be advised that the Department of Mineral Resources and Energy DMRE has decided to **refuse** the application for an Environmental Authorisation and a Waste Management Licence (notification dated 29 January 2024). The reasons for the Refusal are attached in Annex A and can also be downloaded from the SLR website at the following link:

https://www.slrconsulting.com/public-documents/jindal-melmoth-iron-ore-project-kzn30-5-1-2-2-10108mr-final-submitted-to-the-dmre/

Should you wish to appeal any aspect of the decision, this must be done within 20 calendar days from the notification of this decision (29 January 2024). The appeal must be submitted to the Minister of Forestry, Fisheries and Environment and a copy of the appeal also submitted to the Department of Mineral Resources and Energy (Kwazulu Natal Regional Office). Such appeal must be lodged as prescribed in Chapter 2 of the National Appeal Regulations of 2014, as amended, by one of the methods prescribed below.

APPEAL PROCEDURE
Appeal to the Department of Forestry, Fisheries and the Environment
• **Attention**: Directorate Appeals and Legal Review • **Email**: appeals@dffe.gov.za / MRakgogo@dffe.co.za • **By Post**: Private Bag X477, Pretoria, 0001 • **By Hand**: Environmental House, 473 Steve Biko Road, Arcadia, Pretoria, 0083
Copy of the Lodged Appeal to the DMRE
• **Attention**: Regional Manager: Kwazulu Natal Region • **By facsimile**: (031) 305 5801 • **E-mail**: Ntsundeni. Ravhugoni@dmre.gov.za • **By Post**: Private Bag X54307, Durban, 4000 • **By Hand**: 333 Anton Lambede Street, 3rd Floor Durban Bay House, Durban, 4000

Should you decide to appeal, you must comply with the National Appeal Regulation of 2014 in relation to notification of all registered interested and affected parties. A copy pf the appeal form can be obtained from the Department of Forestry, Fisheries and Environment.

Conclusion

Should you have any queries in this regard please contact us using the following email address: JindalMIOP@slrconsulting.com.

Regards,

SLR Consulting (Africa) Proprietary Limited

Ed Perry
Project Director

Kate Hamilton
Environmental Assessment Practitioner

Attachments DMRE Reasons for Refusal

mineral resources
& energy
Department:
Minerals Resources and Energy
REPUBLIC OF SOUTH AFRICA

Private Bag X 54307, DURBAN, 4000, 333 Anton Lembede Street, 3rd Floor Durban Bay House, DURBAN
Tel: (031) 335 9600, Fax: (031) 305 5801

Reference number:	KZN 30/5/1/2/2/10108 MR
Applicant:	Jindal Iron Ore (Pty) Ltd
Location of activity:	King Cetshwayo, within the Kwazulu Natal Region

ACRONYMS

ARD	Acid Rock Drainage
EMPR	Environmental Management Programme
EIAR	Environmental Impact Assessment Report
EA	Environmental Authorisation
MLP	Metal Leaching Potential
MR	Mining Right
PM	Particulate matter
RAP	Resettlement Action Plan
SEI	Site Ecological Importance
TSF	Tailings Storage Facility
WRD	Waste rock dump
WML	Waste Management Licence

DEFINITIONS/TERMINOLOGY

Cone of depression	A depression in the groundwater table that develops around a point from which water is being withdrawn.
Drawdown	When water levels are lowered and held at a reduced level for a period of time.

DECISION FOR REFUSAL

The Department is not satisfied with the compliance in respect of the requirements for an application for an EA. Details regarding the basis on which the Department reached this refusal decision are set out in Annexure 1 of this EA

ACTIVITY APPLIED FOR

By virtue of the powers conferred on It by NEMA and NEM: WA, the Department hereby **refuses** the application for an EA lodged by Jindal Iron Ore (Pty) Ltd with the following contact details –

Shaitan Chouhan
Jindal Iron Ore (Pty) Ltd
22 Kildoon Road
Bryanston
2021

Email : shaitan.chouhan@jindalafrica.com

The activities listed in Annexure 2 as contained in the **NEMA EIA Regulations R.983 of 2014, as amended and NEM:WA, as amended is not approved and cannot be undertaken in the King Cetshwayo Municpality, within the Kwazulu Natal Region.**

ANNEXURE 1: REASONS FOR THE DECISION

1. Background

Jindal Oron Ore (Pty) Ltd (hereinafter referred to as "the applicant") lodged an integrated application for an EA and WML to mine iron ore in terms of Section 24 of National Environmental Management Act, 1998 (Act 107 of 1998) read with Part 3 of the Environmental Impact Assessment (EIA) Regulations, 2014 on 01/02/2022.

The integrated EA and WML application was acknowledged on 10/2/2022 and the mining right application was accepted on 24/5/2022.

The Scoping Report (SR) and Plan of Study for Environmental Impact Assessment was submitted on 24/03/2022 and the report was accepted on 14/07/2022.

The applicant submitted the Environmental Impact Assessment Report (EIAR) on 13/10/2023.

2. Details of activities applied for as per the application form:

Please refer to Annexure 2.

3. Project Description

The proposed 20 170 ha area is located approximately 16 km south and east of the town of Melmoth, KZN. The applicant is consolidating their prospecting rights for the North and South Blocks into a single mining right (MR) **(Refer to Figure 1 for an overview of the area and infrastructure)**. The development of the mine will be a phased approach with mining proposed to be undertaken in the south-eastern section of the South Block. The tailings storage facility (TSF) is proposed to be off-site under a separate application.

The processing plant will produce iron ore concentrate and tailings slurry. The iron ore concentrate will be transported 80 km to the Richards Bay Port by rail using the Nkwalini rail siding which is situated 4 km from the site (the upgrading of the siding is part of a separate application). The concentrate will be exported, and the tailings will be disposed of to the TSF. Associated infrastructure to support the mine includes:

- Milling and processing plant
- Processing plant area
- Primary crusher including reinforce earth retaining wall
- Analytical laboratory
- Rail loading facility
- Melmoth rail siding area
- Access and haul roads
- Upgrade of the existing access road from the R66 national road to the processing plant and mining areas
- New proposed access roads to the mining facilities, primary crusher and laydown area
- Earthworks
- Bulk earthworks terraces
- Contractor's laydown area
- Processing plant internal roads and parking areas
- Service roads for conveyors and pipe routes
- Electrical transmission line and sub-stations
- Electrical reticulation for the processing plant and rail siding areas
- Raw water abstraction and pipelines
- Bulk water supply pump station including the required civil works for the pipeline
- Potable water reticulation including water treatment facility
- Water ponds, raw water pond and pollution control ponds
- Sewer reticulation system, including wastewater treatment works
- Stormwater management infrastructure
- Tailings pipelines
- Concentrate pipelines
- Offices
- Mining contractor's yard
- Contractor's laydown area
- Waste rock dump (WRD)
- Process diesel storage and refuelling bay
- Utility buildings in the processing plant and rail siding areas
- Security fencing
- Waste storage area

- Change house
- Workshops.

Opencast mining techniques with periodic blasts would be used to excavate the iron ore which will then be transported to the processing area. The final dimensions of the South East Pit will be approximately 4 000 m east-west, 1 000 m north-south and 550 m in depth. It is estimated that 2 blasts per week would occur.

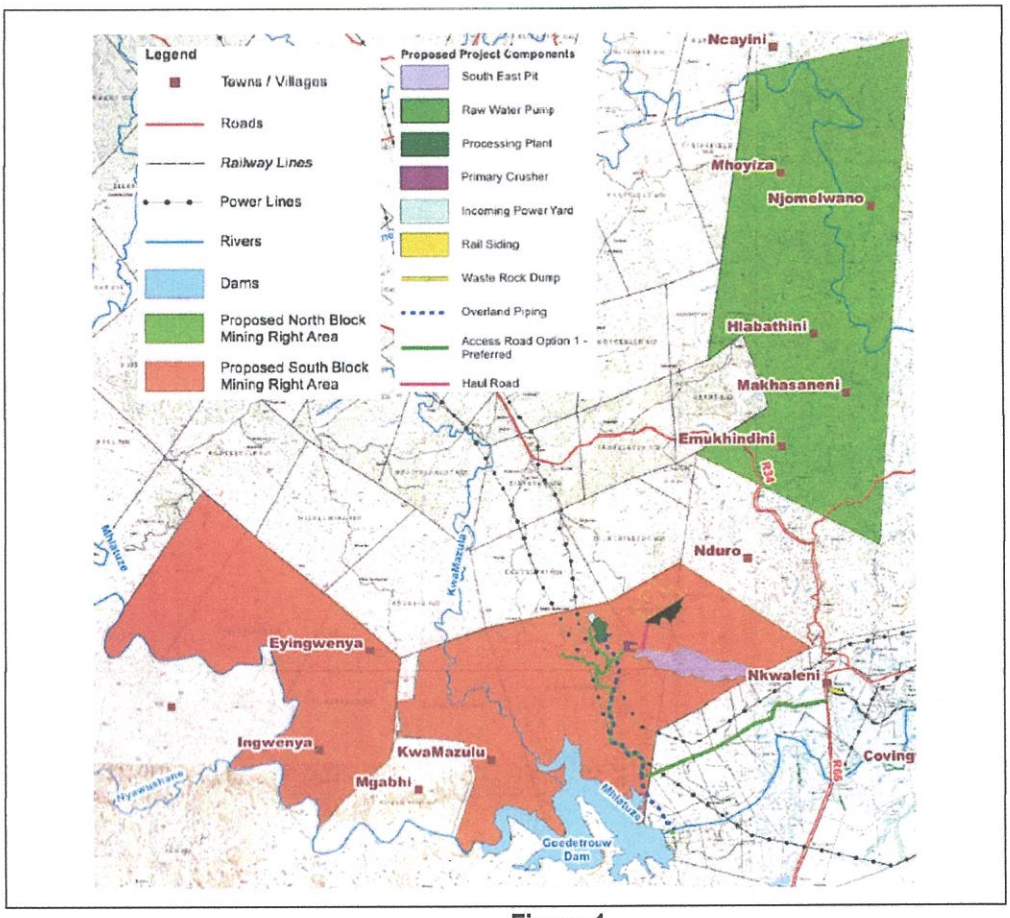

Figure 1

A waste rock dump (WRD) is required to accommodate overburden and waste rock excavated as part of the mining process. The WRD is designed to have a maximum height of 251 m and a footprint area of approximately 204ha. The WRD will provide a storage capacity of 194 000 000 m³ over a deposition period of 25 years.

4. Land cover and use

The main land use is subsistence farming. The terrain is steep for the cultivation of crops with the steeper areas being grazed by animals. There are some small and scattered crop fields alongside the

homesteads. No large commercial agricultural fields are present within the South Block. However, rainfed crops and horticultural crops are cultivated outside the South Block.

The most prominent production area is the Nkwalini valley. In this area, a variety of horticultural crops are produced under irrigation that include citrus, macadamias, bananas and passion fruit. Other areas consist of irrigated sugar cane.

The sensitive receptors include:

- Homestead clusters.
- Farmlands.
- Schools.

The report states that the below mentioned infrastructure is located within the 500m infrastructure buffer namely:

- Dlozeyane Primary School.
- Gqokubukhosi Secondary School.
- Nogajuka Primary School.
- Nogajuka Clinic.

An initial high level survey of the area identified approximately 1 500 households within the south-eastern part of the South Block. The site consists of numerous watercourses and sensitive flora and fauna.

5. Access Restrictions

The report stated that there will be approximately 350 households that would need to be relocated. There could also be the requirement for the relocation of graves and the relocation of 'national estate' i.e. heritage resources of cultural significance. A resettlement specialist has been employed by the applicant however they were *asked to leave the site by local communities* and they did not achieve their objectives. The situation became unsafe, and the EAP notified the Department of the unrest and also provided information about the work that was unable to be completed. Throughout the EIA process there have been various issues with access which resulted in a number of the specialist not being able to complete their work to the desired level.

Departments' view

The Department was engaged on 02 August 2023 and the limitations of the specialist studies was presented as well as the restriction of access on site. The Department in a letter dated 03 August 2023 stated the following:

- In order to give effect to an informed decision-making process, baseline information and potential impacts from an environmental, social and economic point must be assessed by the relevant specialists as defined in the EIA Regulations, 2014, as amended.
- The Department has concerns that there is a potential fatal flaw in the assessment process.
- The prevailing legislation does not give the Department a mandate to allow/grant any applicant access onto a site as it could prejudice the landowner and/or lawful occupiers rights and would be deemed unlawful.
- The applicant can consider other avenues for relief.

6. Impact Assessment

The EIAR was submitted to the Department and the impact assessment findings of the specialist reports will be discussed in the below sections.

6.1 Geohydrology Study

Information from report

A Geohydrological Study was conducted by SLR Consulting (SA) (Pty) Ltd, dated April 2023 to determine:

- The current groundwater conditions on site
- Expected impacts from the project; and
- Determination of appropriate mitigation measures.

The following was not conducted during the study due to access restrictions:

- Water level measurements
- Water quality data and monitoring information
- Hydrocensus information on adjacent farms.

Only once off water level data was available which was extracted from outdated studies. There is also significant uncertainty regarding hydraulic conductivity. The report stated that the hydrogeological conditions on site are complex with varied water levels measures over short distances and the hydraulic conductivity increases with depth in the mine pit area. Dewatering of the pit will result in a cone of

depression and if the drawdown exceeds 5m relative to the steady state water level, groundwater users within the below distances are expected to have a notable drawdown in water level in supply boreholes:

- Up to 2.5 km in a westerly direction
- 1.6km in a southerly direction
- 1.2 km in a northerly direction; and
- 1km in an easterly direction.

Based on the above, the farm areas on which drawdown is expected to occur is:

- Ntembeni 16921.
- Kromdraai 6110.
- Lot No 5 1038;
- Lot No 5 10383 GU
- Lot 7 Umhlatuzi 10870
- Lot 9 Umhlatuzi 10872
- Hillcrest 15900
- Loudwaters 11258
- Lot 8 Umhlatuzi 10871
- Maranqapawlu 15351

The dewatering of aquifers will result in a reduction of groundwater that would ultimately discharge into rivers as baseflow. Post mining, a pit lake is expected to develop. Water supply requirements for the project is uncertain. The report states that a large fault zone runs through the central portion of the WRD and there is no water level information in this area.

Departments' view

The Department notes that there is an uncertainty of impacts, and the report relies on outdated and limited information. The report states that the hydrogeological conditions on site are complex and varied therefore detailed information is required for an understanding of the baseline information on site and the impacts that the mining operation will have on the receiving environment. Impacts could have a wider and far-reaching consequence than what the report describes, and the uncertainty of water requirements further add to the limitations of this study. The report lists various monitoring, additional plans and work that needs to be conducted prior to mining commencing. While the Department acknowledges the access restrictions, it is also noted that there is limited information contained in the report.

6.2 Surface Water Study

Information from report

A Surface Water Study was conducted by SLR Consulting (SA) (Pty) Ltd, dated June 2023. The report stated that the mine infrastructure, WRD and pit are located within the 1:100 year floodlines and most of the infrastructure traverses watercourses. The report recommended that suitable flood protection measures are required to protect infrastructure from being flooded and maximum flood depths for the various streams must be considered during the design of flood protection measures. Further, flood protection measures are to be relatively high along the full alignment of infrastructure in order to withstand flood level and flood velocities. Several watercourses will have to be diverted away from their natural courses to allow for development of infrastructure.

The report investigated various options in which to provide the required raw water to the mine. The mine possibly requires 15 million m^3 of raw water per annum for its processes. The Umhlatuze catchment is already overallocated and the report states that the mine is exploring other options to secure water allocation and details of these options are not available.

The report noted the following:

- The assessment is reliant on the accuracy of the utilised data and no verification of the information was conducted.
- Several assumptions have been made however the passage of time and additional studies may refine assumptions leading to model accuracy and changes to conclusions in the report.

Mr Norman Ward[1] compiled a report specifically to investigate the various water options that could be available to supply the mine with their potential water requirements. He produced a report dated April 2022 and noted the following:

- Very detailed analyses of the Mhlathuze system are undertaken every 3 years which shows present as well as future demands and supply options.
- The Mhlathuze catchment is complex both in terms of demands and supplies.
- The Mhlathuze system is currently in deficit to the amount of 9 million m^3 and there's a possibility that a new application for water supply will not yield positive results.
- The Phase 2 Tugela Transfer was initiated because of the 2014 drought. After allowing for the current deficit, the mine will take up a third of this new surplus.

[1] Was employed by the Department of Water and Sanitation and since retired.

Mr Ward considered the below options with costs to address the mines water requirements:

AUGMENTATION	Yield in Mm^3 per annum	Cost or Unit reference value per m^3	COMMENT
Phase 2 of the Tugela Mhlathuze transfer scheme as currently in progress	34	R2.47 for electricity alone	Risks: Operating costs are very high, but intermittent, thus hard to budget for. (R84 million pa for 5 years out of 25) The duplicated scheme will be an even greater problem Both phases will cost R168 million p.a. to operate (Based on current phase and 2017 prices)
Water conservation	7	Varies.	This is an ongoing project, reliant on the municipalities for funding and implementation. If stopped, the gains are lost in a few years.
Raising of Goedertrouw dam	6	R2.05	Small yield, but a relatively low cost per m^3. Cost is once off and doesn't rely on future funding. Requires immediate capital of R127 Million. See also comment on funding for the transfer scheme.
Build Nseleni dam	12	R2.56	Capital funding may be problematic, however Mhlathuze Water may be able and willing to fund it on their balance sheet.
Re-use of effluent	6	Still being studied. But may be high.	The fact that industries such as Mondi have spent so much effort to analyse this shows that it is not a simple or cheap option.
Optimize operation of existing system	10	Unknown capital costs but not excessive.	As visualized by the consultants this requires building of measuring stations in tributaries as well as infrastructure to convey this data to the internet. No details as to who would use it. Vandalism is a problem.
Optimize operation of existing system using PSP	18	R0.04	Use of a professional service provider (PSP) with an agreement with the Infrastructure Branch of DWS to allow release instructions directly to the operator. PSP would be covered by indemnity insurance protecting DWS against claims from users. PSP would employ an engineer with experience who would train future successors
Duplication of the pipeline from Mhlathuze Weir to Nsezi WTP	24	Capital cost recovered through electricity savings.	This project was studied independently by Norman Ward as well as Mhlathuze Water. There was agreement to implement during the 2016 drought, but the contract stalled due to a court challenge by an unsuccessful bidder. Capital to be supplied by Mhlathuze Water.

Both the risks and motivation for each option was detailed with Mr Ward concluding that the last two options should be investigated by the mine however there is no certainty that any option will be successful.

Departments' view

The impact to watercourses due to the siting of the mine within the 1:100 year floodline, the numerous crossings, the proposed flood protection measures with unidentified heights poses a risk and places further impacts on the catchment.

Taking into account the information presented in Section 6.1 of this EA, the conceptual design includes utilising water from the pit in the processing areas and the effects of dewatering the aquifer is still largely unknown with impacts affecting various farms.

The mines' water requirements are still unknown. The Department cannot consider the separation of the mines water requirements issues to the application at hand. In order for an operation to be sustainable the utilisation of raw materials needs to be investigated thoroughly especially in this instance due to the current water situation in the Umhlathuze catchment.

Sustainable development requires the consideration of all relevant factors including the use and exploitation of non-renewable natural resources. Use of these resources needs to be responsible, equitable, and considers the consequences of the depletion of the resource. There is limited information and uncertainty with the information presented and no clear indication of resolutions.

6.3 Terrestrial Biodiversity Preliminary Assessment

Information from report

A Terrestrial Biodiversity Preliminary Assessment was undertaken by Eco-Pulse Environmental Consulting Services, dated 11 May 2023. The report notes the following:

- Ten vegetation communities were identified:
- Four vegetation communities have a *Very High Ecological Importance.*
- The remaining vegetation communities have a *Medium to Very Low Importance.*
- Sampling was undertaken at the end of the appropriate seasonal window.

The four vegetation communities of *Very High Ecological Importance* are highly likely to support several floral Species of Conservation Concern that are either red-listed or endemic. Under a good mitigation scenario the impacts range between medium to high during the construction phase with the impact reduced to medium during the operation phase. The specialist noted the following:

- Additional in-filed sampling during mid-summer is to be undertaken.
- An update of the floral component of the report is required to better inform the impact assessment process.

- The report has limitations which fall short of the requirements in the latest NEMA Minimum Requirements and Protocol for Specialist Terrestrial Biodiversity Impact Assessment.
- The project would be implemented according to the current layout provided by the client, without any refinements.
- Options to mitigate the loss of Very High Site Ecological Importance (SEI) are limited and even with onsite rehabilitation will result in impacts of high significance to terrestrial biodiversity.
- Based on best practice guidelines, a biodiversity offset would be required to compensate for these impacts.

The specialist concluded that the mining operation will have a significant detrimental impact on biodiversity.

Departments' view

Sustainable development requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations. The specialist has noted that the layout could not be refined to avoid detrimental harm to the environment.

Sustainable development requires the consideration of all relevant factors including the following:

(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

The EAP noted that at the time of report, finalised site plans and details of infrastructure were not available.

The mitigation hierarchy is a tiered tool which is utilized throughout a project's lifecycle to limit negative impacts on the receiving environment. Where avoidance is not possible, the next best alternative would be to minimize the overall magnitude of impacts to the environment or to rehabilitate impacted areas to a near natural state. In instances, where rehabilitation of impacts is insufficient to compensate for residual negative impacts on the receiving environment, an offset is the last possible measure that could be applied. EIAs are a tool to investigate the best practicable option that will best ensure the maintenance of ecological integrity while promoting justifiable social and economic development. In this regard it is also vital to follow the "mitigation hierarchy", where alternatives must firstly be considered to

avoid negative impacts altogether, but if avoidance is not possible to considered alternatives that will better mitigate and manage negative impacts, while search for alternatives to better enhance the positive impacts.

NEMA and the EIA Regulations call for a hierarchical approach to impact management:

- Alternatives are be investigated to avoid negative impacts altogether.
- After it has been found that the negative impacts cannot be avoided, alternatives must be investigated to reduce unavoidable negative impact.
- Alternatives must be investigated to remediate (rehabilitate and restore).
- Unavoidable impact that remain after mitigation and remediation must be compensated for through investigating options to offset the negative impacts, While throughout, alternatives must be investigated to optimise positive impact.

In terms of having to follow the impact mitigation hierarchical, it is not acceptable to not follow the hierarchy in terms of for instance not investigating alternatives to avoid negative impacts and simply investigation options to mitigate impacts.

Based on the outcomes of the Biodiversity Assessment, the gaps, limitations and ultimately the conclusions do not satisfy the requirements contained in NEMA and the EIA Regulations, 2014 as amended.

6.4 Wetland and Aquatic Ecosystem Assessment

A Wetland and Aquatic Ecosystem Assessment was conducted by Eco-Pulse Environmental Consulting Services, dated 07 March 2023. The following watercourses were identified on the proposed area:

- 930 river/stream units
- 141 wetland units

Figure 2 contains the location of the watercourses for the South Block. The watercourses on site range from natural to poor.

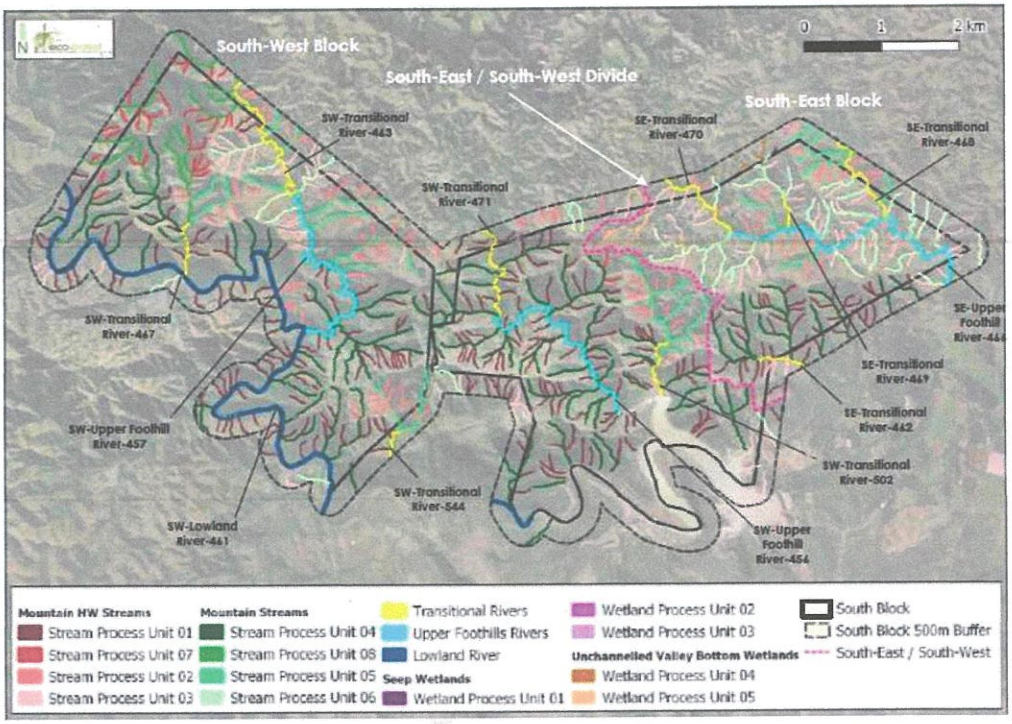

Figure 2: Watercourse delineation and classification

The report stated the following:

- Key information required to accurately assess potential impacts and risks to freshwater ecosystems was not available.
- No field visit was taken to the North Block study area. All watercourse delineations and baseline assessments for that area were done at a desktop level.
- Most watercourses in the study area could not be verified in the field.
- With ecology being dynamic and complex, there is the likelihood that some aspects (some of which may be important) may have been overlooked.
- Information in the report should be regarded as preliminary and indicative, and subject to more detailed impact evaluations once appropriately detailed information becomes available.
- There are no plans in place to re-site the power yard and process plant despite this infrastructure encroaching into delineated watercourse boundaries.
- While the final dimensions of the South East Pit have not yet been determined, a total of fourteen (14) watercourses exist within the current proposed footprint. This includes nine (9) mountain headwater streams and five (5) mountain streams. These watercourses stand to be partially or completely modified as pit mining advances. It is possible that additional

watercourses in the vicinity of the mine pit will also be directly impacted as part of pit establishment and ongoing mining processes **(Refer to Figure 2)**.

- When the waste rock dump is at capacity, the footprint intersects with a total of fourteen (14) watercourses. This includes six (6) mountain headwater streams, six (6) mountain streams, one (1) transitional river, and one (1) seep wetland.
- In its currently proposed location, the processing plant footprint coincides with the headwater areas of two (2) Mountain Headwater Streams, a single (1) wetland, and a single (1) Mountain Stream. Additionally, the proposed location of the incoming power yard coincides with a single (1) wetland.
- Whilst the primary crusher does not overlay with any mapped watercourses, it does advance into the preliminarily recommended watercourse buffer zone area for a (1) Mountain Headwater Stream and a (1) Mountain Stream.
- A review of the road alignment provided to Eco-Pulse shows that the alignment follows an existing unpaved road with three (3) existing watercourse crossings. Under the current alignment there is, however, an approximately 1.5km long length of road leading to the processing plant that runs through 'virgin' land, and which would involve crossing two (2) new watercourses.

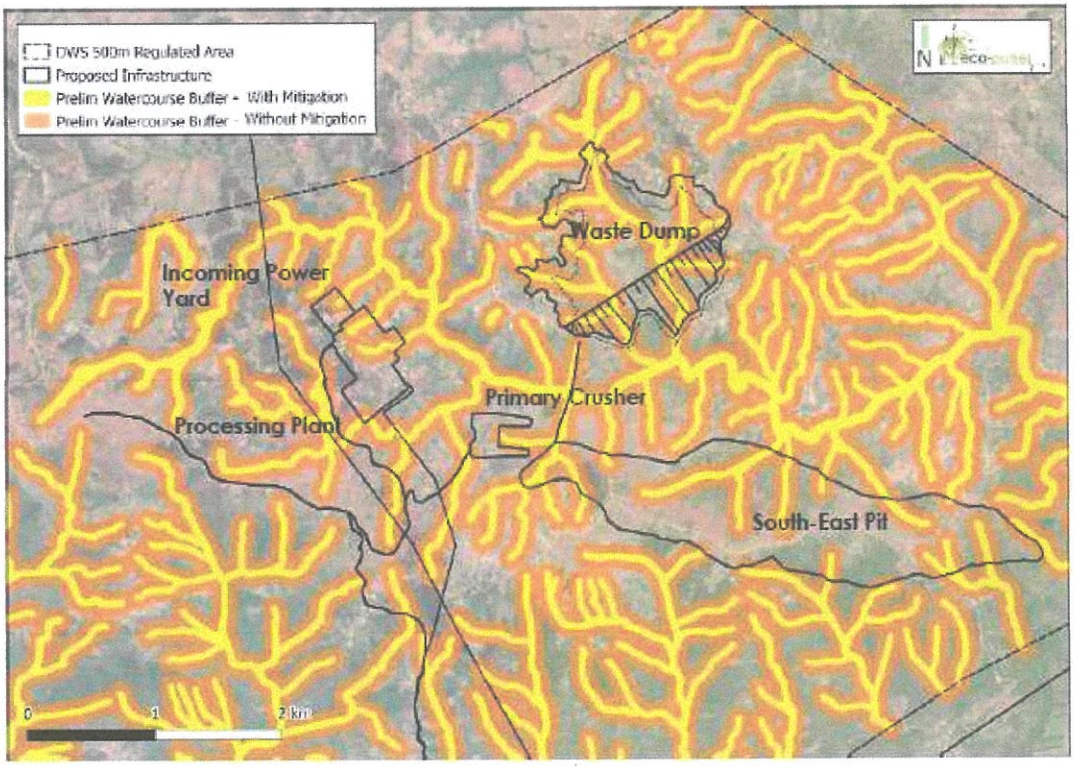

Figure 3: Location of infrastructure in relation to watercourses

Without re-siting this infrastructure, the above-mentioned watercourses stand to be directly or indirectly impacted by the proposed infrastructure. In accordance with the mitigation hierarchy, it is necessary for the design team to explore all possible siting, re-sizing, and layout adjustment options to avoid direct loss of watercourse habitat, and to effectively mitigate potential indirect impacts to watercourses through the implementation of sustainable design principles.

A total of 11.17 ha of freshwater habitat stands to be permanently altered (infilled or mined out) during the construction and operation of the mine. This includes 0.62 ha of critically endangered wetland habitat. Given that the conservation/threat status of all wetlands in the study area is considered critically endangered, any destruction of wetland habitat, no matter how large or small, is likely to require some form of an offset as compensation for the loss.

The report recommends that the residual impacts to freshwater habitat be investigated and addressed as part of an overall biodiversity offset investigation. The specialist stated that a recommendation was proposed to the applicant to resize the pit to avoid crossing a sub-catchment at the current southern extent of the pit however the applicant deemed it not feasible.

Departments' view

A total of 11.17 ha of freshwater habitat and 0.62 ha of critically endangered wetland habitat stands to be permanently altered. Based on the numerous limitations and gaps attached to this study, the impact on biodiversity is not known.

Sustainable development requires that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised. Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures.

6.5 Air Quality

An Air Quality Assessment was undertaken by WKC Group dated 17 March 2023. The objective of the study was to evaluate the significance of potential impacts to air quality associated with the operational phase. The assessment focussed on PM_{10}, $PM_{2.5}$ and nuisance dust. The report notes that information was provided on major infrastructure, where it was available. The report states that prospecting in the

North Block will be undertaken in parallel with Phase 1 mining to inform planning of possible future mining phases. Monitoring devices were installed to measure PM_{10}, $PM_{2.5}$ concentrations. The report noted that the measurement period was not deemed sufficient for comparison against the national standards but provided a snapshot of the particulate matter (PM) concentrations in the area. The report notes that the exact project boundary was not defined however the specialist placed a 500m buffer around each key working area and no sensitive receptors will be located within this zone during the operational phase. The report identified a total of 21 sensitive receptors around working areas and the location of these receptors are indicated in **Figure 4 and 5.**

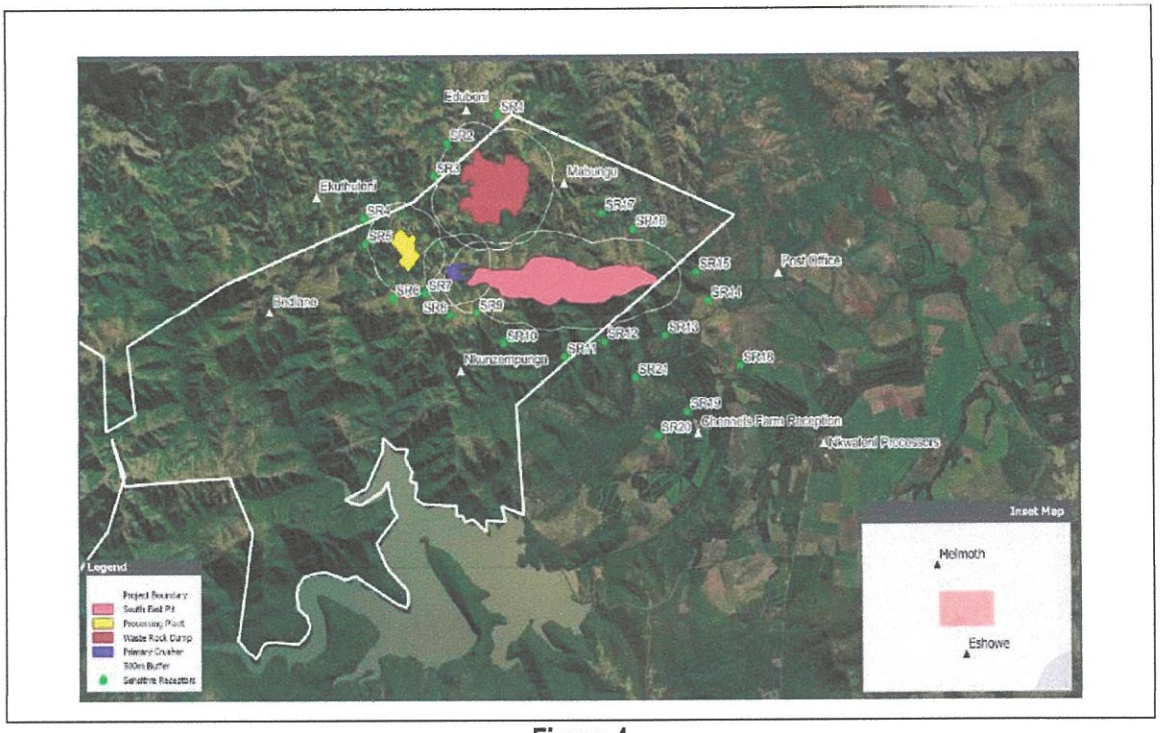

Figure 4

Air quality modelling indicates that levels of dust to surrounding farming areas are likely to be within manageable levels. However, ongoing monitoring needs to be undertaken to understand whether the model outcomes are correct. The report adds that the dust sensitivity on plant species that provide an positive economic benefit is *uncertain* and *not well documented*.

Site ID	Site Description	Distance from 500m Buffer Zone (m)
SR 1	Homestead Cluster	103
SR 2	Homestead Cluster	194
SR 3	Homestead Cluster	49
SR 4	Homestead Cluster	214
SR 5	Homestead Cluster	75
SR 6	Homestead Cluster	137
SR 7	Homestead Cluster	66
SR 8	Homestead Cluster	226
SR 9	Homestead Cluster	29
SR 10	Homestead Cluster	421
SR 11	Homestead Cluster	586
SR 12	Homestead Cluster	268
SR 13	Homestead Cluster	561
SR 14	Farmland	652
SR 15	Homestead Cluster	356
SR 16	Homestead Cluster	211
SR 17	Homestead Cluster	522
SR 18	Farmland	1,947
SR 19	Farmland	2,155
SR 20	Farmland	2,368
SR 21	Homestead Cluster	1,158

Figure 4

Departments' view

There is difficulty in reviewing and consideration of the recommendations of the study without fully understanding the resettlement process. The uncertainty with the project boundaries further adds to the Departments concerns. The Department acknowledges that the specialist stated that there are no fatal flaws identified from an air quality perspective. Each gap in the report is therefore reliant on additional assumptions which therefore creates a situation where you have to constantly bear in mind the gaps and assumptions and review the documentation against the backdrop of the community's resistance to the project.

6.6 Noise Assessment

A Noise Impact Assessment was conducted by the WKC Group, dated 22 March 2023. The assessment was conducted in the south-eastern section of the South Block only. The report noted that no formal equipment list was available at the time of modelling, but a list was developed based on available equipment documentation and was approved by the application prior to modelling. The noise that will be generated during the construction phases is expected to be in exceedance within 600m of the processing plant and crushing area. During the operational phase, project related activities are anticipated to have a severe impact at three locations. The report noted that the assessment was conducted for a reasonable worst case scenario with:

- Equipment lists being determined from other project documents.
- Limited technical specifications
- No detailed plot plan to determine equipment location.

Departments' view

There is difficulty in reviewing and consideration of the recommendations of the study without fully understanding the resettlement process. The uncertainty with the project boundaries, equipment lists, and unavailability of plot plans further adds to the Department concerns. Each gap in the report is therefore reliant on additional assumptions which creates a situation where you have to bear in mind the gaps and assumptions and review the documentation against the backdrop of the community's resistance to the project. Further the report adds that the assessment needs to be updated once more information is available. There is uncertainty as updated/additional information could place impacts at unacceptable levels.

6.7 Agricultural Assessment and Climate Change

An Agricultural Agro -Ecosystem was conducted for the site by TerraAfrica, dated 05 July 2023 to ensure that the proposed land use change is sufficiently considered. The report noted that only the South Block was assessed. The report noted that the project is acceptable from the perspective of soil and agricultural potential. However, the cumulative impact of expanding the mine into the Nkwalini Valley will have a high significance and is considered as an irreversible impact on agricultural production.

A Climate Change Study was conducted by Promethium Carbon, dated 27 October 2022 and the specialist identified no fatal flaws and did not impose any conditions for the project.

6.8 Visual Impact

A Visual Impact Assessment was conducted by GYLA, dated February 2023 and focused on the potential impact of the physical aspects of the operation (i.e. form, scale, and bulk) and their potential impact within the local landscape and receptor context. The report focused on South Block and looked at an area of 10km around the proposed site. The report states that the visual impact would be *High* during the construction and operational phase with the implementation of mitigation measures. The specialist noted that substantial mitigation measures would be required to lower impacts to a medium rating.

6.9 Blasting Impacts

A Blasting Impact Assessment was conducted by Blast Management and Consulting, dated 27 October 2022 to determine the possible impacts from blast events. The report provided the minimum unsafe zone for blasting and stated that any distance cleared should not be less than 412m. There are various structures within a 500m range of the pit and the expected levels of ground vibrations are rated as high. The specialist concluded that there is no reason that the proposed mining operation cannot continue if attention is given to the recommendations contained in the report.

6.10 Cultural and Palaeontology Assessment

A Palaeontological Impact Assessment was conducted by Professor Marion Bamford, dated 06 May 2023. The specialist deemed the impacts low against palaeontology and found no fatal flaws.

The Heritage Impact Assessment was conducted by Ethembeni Cultural Heritage, dated 08 May 2023. The specialist identified graves older than 60 years and stated that these will have to be fully audited during a wider public participation process and implementation of the Resettlement Action Plan (RAP). The survey was incomplete due to the community tensions. The specialist states that surveys should be finalised.

6.11 Traffic Assessment

A Traffic Impact Assessment was conducted by Siyazi Thula Transportation Planning (Pty) Ltd, dated March 2023. The report stated that the report focused on the Sout Block only. The specialist concluded that the project will have a manageable impact on relevant road networks during all phases and provided various mitigation measures and upgrades that would need to be implemented. The report added that more detailed investigations would be required regarding access route to the mine and to the Nkwalini Railway siding.

6.12 Socio Economic Study

A Socio Economic Impact Assessment was conducted by Urban-Econ Development Economists, dated March 2023. The purpose of the study was to determine the socio-economic impacts from the project and to provide a reasoned opinion on the need and desirability from a socio-economic perspective. The report stated that the project should contribute to the socio-economic development of the communities

in the area. The report also added that some negative socio-economic impacts can also be created as a result of the project. Some of the negative aspects include:

- Alteration to the sense of place
- Loss of economic activities
- Population influx
- Changes in water quality
- Loss of labour.

The specialist concluded that there are many drawbacks to establishing the mine, however the socio-economic benefits that would materialise would outweigh many of the potentially negative impacts and recommended that the project proceed provided all mitigation measures from the various specialists be applied and implemented.

Departments' view

The Department has stated its view in preceding sections regarding specialist report conclusions and recommendations. The reliance on recommendations from other reports which haven't been conducted to desired levels adds uncertainty.

6.13 Hydropedological Assessment

A Hydropedological Assessment was conducted by GCS (Pty) Ltd dated 12 December 2022. The specialist noted that the report is a *work-in-progress* document due to the gaps and limitations of the investigation and the report can be *updated as the project changes from the planning to the mining phase*. The specialist evaluated the potential pollution sources and primary receptors in the area. The specialist states that no *hydropedological avoidance areas have been identified and will be difficult to implement (*avoidance*) areas considering the potential impact areas associated with the project.* The specialist further found *no concrete reason not to continue with the project and encroachment of wetlands should be considered during all activities. Further wetland buffers as determined by EcoPulse (2021) should be sufficient to sustain the hydropedology functions of wetlands and watercourses in the project area.*

6.14 Rehabilitation and Decommissioning

A Rehabilitation, Decommissioning and Mine Closure Plan was produced by E-Tek Consulting, dated March 2023. The purpose of the assessment was to guide the mines closure planning process. The report noted that no feasibility study was conducted to determine a sustainable post mining land use. The report mainly focussed on the South Block and provided the closure cost estimation. The report detailed the gaps and further action required which includes:

- Current groundwater monitoring points referenced in the document will not be feasible throughout the life of mine as some of the points will be destroyed.
- Current surface water monitoring points needs to be reassessed so that all monitoring points provide a clear picture of impacts from the mining activities.
- Biodiversity offsets discussions
- Reassessment of the air quality monitoring as mining progresses

The specialist concluded that the report provides a good indication of the closure liability costs.

6.15 Waste Rock Assessment

A waste rock waste assessment and geochemical characterisation study was conducted by SLR, dated July 2023. The study assessed amongst others the:

- Risks for Acid Rock Drainage (ARD) and Metal Leaching Potential (MLP)
- Classification of the waste rock materials
- Facility liner requirements.

The report stated that the waste rock was tested and is classified as non-potentially acid generating. The specialist concluded that the waste rock materials present a low risk for a ARD and MLP to the surrounding environment and downstream receptors. The specialist further provided recommendations should there ever be changes in the composition of the materials.

7. FINDINGS

After consideration of the information and factors listed above, the Department made the following findings:

The Department offered the following assistance to the applicant and EAP during the EIA process:

- Review of the scoping report.
- Request for additional information on the scoping report, dated 07/06/2022. The scoping report was accepted on 14/07/2022.
- The EAP requested an extension in which to submit the EIAR. The following extensions were afforded:
    - First extension was authorised on 27/10/2022. The report was due on 18/03/2023.
    - Second extension was authorised on 13/12/2022. The report was due on 16/07/2023.
    - Third extension was authorised on 30/05/2022. The report was due on 16/10/2023.

The EAP approached the Department for guidance due to the technical gaps in the specialist studies and potential gaps in the assessment process. The Department provided a response on 03/08/2023 (Refer to Section 5).

The mining right application includes the North and South Block however studies conducted concentrated on the South Block only. The report adds that prospecting activities will be conducted in parallel to mining activities in the North Block to define mining. Some reports have detailed that not all information has been provided, outdated and limited information was utilised or there wasn't a complete list of infrastructure available.

Each assessment conducted presented its own gaps and limitations with some studies quoting or relying on conclusions from other studies. This created an even larger gap or set of limitations which a reviewer had to keep track off in-order to understand the information presented. The Department is therefore unsure if I&AP's understood the project and impacts.

Specialist reports have stated that the site is complex and varied therefore detailed information is required for an understanding of the baseline information on. Should this be ignored, impacts could have a far wider and far-reaching consequence than what the report describes.

The impact to watercourses due to the siting of the mine within the 1:100 year floodline, the numerous crossings, the proposed flood protection measures with unidentified heights poses a risk and places

further impacts on the catchment. The effect of dewatering the aquifer is still largely unknown with impacts affecting various farms.

The mines' water requirements are still unknown and there cannot be a separation of the mines water requirements during the consideration of the application. In order for an operation to be sustainable the utilisation of raw materials needs to be investigated thoroughly especially in this instance due to the current water situation in the Umhlathuze catchment.

Sustainable development requires the consideration of all relevant factors including the use and exploitation of non-renewable natural resources. Use of these resources needs to be responsible, equitable, and considers the consequences of the depletion of the resource. There is limited information and uncertainty with the information presented and no clear indication of resolutions.

Sustainable development also requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations. Specialist has noted that the layout could not be refined to avoid detrimental harm to the environment.

Sustainable development requires the consideration of all relevant factors including the following:

> (i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

The EAP noted that at the time of report, finalised site plans and details of infrastructure were not available.

The mitigation hierarchy is a tiered tool which is utilized throughout a project's lifecycle to limit negative impacts on the receiving environment. Where avoidance is not possible, the next best alternative would be to minimize the overall magnitude of impacts to the environment or to rehabilitate impacted areas to a near natural state. In instances, where rehabilitation of impacts is insufficient to compensate for residual negative impacts on the receiving environment, an offset is the last possible measure that could be applied.

EIAs are a tool to investigate the best practicable option that will best ensure the maintenance of ecological integrity while promoting justifiable social and economic development. In this regard it is also

vital to follow the "mitigation hierarchy", where alternatives must firstly be considered to avoid negative impacts altogether. NEMA and the EIA Regulations call for a hierarchical approach to impact management. Not fully investigating alternatives and simply investigation options to mitigate impacts is not responsible and goes against the NEMA Principles.

Sustainable development requires that the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised. Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures. A total of 11.17 ha of freshwater habitat and 0.62 ha of critically endangered wetland habitat stands to be permanently altered.

There is difficulty in reviewing and consideration of the recommendations of the information in the BAR without fully understanding the resettlement process. The uncertainty with the project boundaries further adds to the Departments concerns.

The reliance on recommendations from other reports which haven't been conducted to desired levels adds uncertainty and does not serve or align to the purpose of conduction EIA's.

The principles contained in NEMA *apply throughout the Republic to the actions of all organs of state that may significantly affect the environment and* serve as guidelines *by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the environment.*

Section 2(4)(a) states that sustainable development requires the consideration of all relevant factors including, *that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.*

There is limited information in which to make a positive decision. By applying holistic and defensible decision making, taking cognisance of the precautionary principle and in-line with the Departments mandate the Departments decision to refuse is in line with the obligation in terms of Section 24 of the Constitution. The Department has a mandate to ensure the environment is protected for present and future generations.

ANNEXURE 2: GENERAL CONDITIONS

1. NOTICE OF REFUSAL OF ENVIRONMENTAL AUTHORISATION

1.1 Within 14 (fourteen) calendar days from the date of this decision and in accordance with EIA Regulation 4(2) the applicant must in writing notify all registered I&AP's of –

1.1.1 The outcome of the application,

1.1.2 The date of this decision;

1.1.3 The date of issue of the decision; and

1.1.4 The reasons for the decision as included in Annexure 1.

1.2 Draw the attention of all registered I&AP's to the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations,

1.3 Draw the attention of all registered I&AP's to the manner in which they may access the decision.

1.4 Provide the registered I&AP's with:

1.4.1 Name of the applicant;

1.4.2 Name of the responsible person for this application;

1.4.3 Postal address of the applicant;

1.4.4 Telephonic and fax details of the applicant; and

1.4.5 E-mail address of the applicant if any.

RECOMMENDATIONS

In view of the above, the Department wishes to advise that due consideration shall at all times be given to the general objectives of integrated environmental management as laid down in Chapter 5 of NEMA as well as the requirements of the EIA Regulations whenever there are potential detrimental impacts to the environment.

This application is accordingly **refused**

Yours Sincerely

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REGIONAL MANAGER: MINERAL REGULATION

KWAZULU NATAL REGIONAL OFFICE

DATE 29/01/2024

ANNEXURE 2: LISTED ACTIVTIES

No.	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
9	"The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water or storm water—"	40 Ha	X	The proposed activity would need new pipelines for water supply.
10	"The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, wastewater, return water, industrial discharge or slimes "	Certain pipes will be up to 10 km length with a 0.36 m internal diameter.	X	New sewage, return recycle water and process and potable water pipelines network servicing the mine plant, laboratory, offices, workshop facilities. An additional pipeline will also be required for the transfer of concentrate (in a slurry form) to the Nkwalini Siding which would follow the access road alignment.
11	"The development of facilities or infrastructure for the transmission and distribution of electricity - (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more, excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is - (a) temporarily required to allow for maintenance of existing infrastructure; (b) 2 kilometres or shorter in length; (c) within an existing transmission line servitude; and (d) will be removed within 18 months of the commencement of development."	6.5 ha	X	Construction and operation of a new substation (including transformer yard) and transmission lines with a capacity of up to 33 kV to provide electricity to infrastructure within the footprint of the mine, i.e., processing plant, offices, etc.

No.	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
13	The development of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 16 in Listing Notice 2 of 2014.	100 000 m³	X	The construction of a reservoir with a capacity of up to 100 000 m³ within the mining right area.
14	The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	Approximately 500 m³.	X	Storage and handling of dangerous goods, i.e., diesel, oil, and other lubricants, etc.
19	The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse, but excluding where such infilling, depositing, dredging, excavation, removal or moving - (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or	Within the proposed footprint of 1000 Ha.	X	Construction of site infrastructure

No	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
	(e) where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies			
24	"The development of a road – (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13.5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road - (a) which is identified and included in activity 27 in Listing Notice 2 of 2014; (b) where the entire road falls within an urban area; or (c) which is 1 kilometre or shorter."	36 ha	X	Construction of on-site haul and access roads.
25	The development and related operation of facilities or infrastructure for the treatment of effluent, wastewater or sewage with a daily throughput capacity of more than 2 000 cubic metres but less than 15 000 cubic metres.	Within plant footprint – 60 Ha	X	Construction and operation of a Sewage and Water Treatment Plant.
30	Any process or activity identified in terms of section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004).	Total clearance of approximately 1000 Ha.	X	Clearing of vegetation for the construction of on-site infrastructure and operation of the South East Pit.
56	"The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre - (i) where the existing reserve is wider than 13,5 meters, or	36 Ha	X	Widening and lengthening of existing road

No	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
	(ii) where no reserve exists, where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas."			
64	The expansion of railway lines, stations, or shunting yards where there will be an increased development footprint, excluding - (i) railway lines, shunting yards and railway stations in industrial complexes or zones; (ii) underground railway lines in mines; or (iii) additional railway lines within the railway line reserve."	7.5 Ha	X	Potential expansion of railway lines, shunting yards etc.

No.	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
4	The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.	10 Ha	X	Storage and handling of dangerous goods, i.e., diesel, oil, and other lubricants, etc
6	"The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding - (i) activities which are identified and included in Listing Notice 1 of 2014; (ii) activities which are included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; (iii) the development of facilities or infrastructure for the treatment of effluent, polluted water, wastewater or sewage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; or (iv) where the development is directly related to aquaculture facilities or infrastructure where the wastewater discharge capacity will not exceed 50 cubic metres per day."	Not Applicable.	X	A Water Use License Application will be required for the proposed project.
15	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan."	Total clearance of approximately 1 100 Ha.	X	The clearance of indigenous vegetation for the placement of infrastructure.

No.	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
16	The development of a dam where the highest part of the dam wall, as measured from the outside toe of the wall to the highest part of the wall, is 5 metres or higher or where the highwater mark of the dam covers an area of 10 hectares or more.	Within plant footprint –60 Ha	X	Water storage of up to 100 000 m^3 will be required which would require a wall of 5 m or higher.
17	"Any activity including the operation of that activity which requires a mining right as contemplated in section 22 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including – (a) associated infrastructure, structures, and earthworks, directly related to the extraction of a mineral resource; or (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening, or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies."	Total area of approximately 1000 Ha.	X	The project requires a mining right for the extraction and processing of ore.
19	"The removal and disposal of minerals contemplated in terms of section 20 of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), including – (a) associated infrastructure, structures, and earthworks, directly related to prospecting of a mineral resource; or (b) the primary processing of a mineral resource including winning, extraction, classifying, concentrating, crushing, screening or washing; but excluding the secondary processing of a mineral resource, including the smelting, beneficiation, reduction, refining, calcining or gasification of the mineral resource in which case activity 6 in this Notice applies."	Total area of approximately 1000 Ha.	X	The Jindal MIOP will require the construction and operation of an open pit area, waste rock dump, and a processing plant.

No.	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listed activity
2	"The development of reservoirs, excluding dams, with a capacity of more than 250 cubic metres. d. KZN i. Trans-frontier protected areas managed under international conventions; ii. Community Conservation Areas; iii. Biodiversity Stewardship Programme Biodiversity Agreement areas; iv. World Heritage Sites; v. In an estuarine functional zone; vi. In a protected area identified in terms of NEMPAA, excluding conservancies; vii. Sites or areas identified in terms of an international convention; viii. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; ix. Core areas in biosphere reserves; x. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, or zoned for a conservation purpose; xi. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; xii. Outside urban areas: (aa) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any terrestrial protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; or	Up to 100 000 m³, 3 ha	X	The Jindal MIOP will require the construction and operation of a reservoir in excess of 250 m³ in capacity within a critical biodiversity area.

No.	Listed Activity Description	Aerial extent of the activity (ha)	Listed Activity (Mark with an X where applicable)	Relevance of listed activity
	(bb) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or xiii. Inside urban areas: (aa) Areas zoned for use as public open space; (bb) Areas seawards of the development setback line or within 100 metres from the high-water mark of the sea if no such development setback line is determined; or (cc) Within urban protected areas."			
4	"The development of a road wider than 4 metres with a reserve less than 13.5 metres. KZN i. In an estuarine functional zone; ii. Trans-frontier protected areas managed under international conventions; iii. Community Conservation Areas; iv. Biodiversity Stewardship Programme Biodiversity Agreement areas; v. World Heritage Sites; vi. A protected area identified in terms of NEMPAA; vii. Sites or areas identified in terms of an international convention; viii. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; ix. Core areas in biosphere reserves; x. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose;	Within total area of approximately 1000 Ha.	X	The construction of haul and access roads

	xv. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; xvi. Outside urban areas: (aa) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any terrestrial protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, or (bb) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined, or xvii. Inside urban areas: (aa) Areas zoned for use as public open space; (bb) Seawards of the development setback line or within 100 metres from the high-water mark of the sea if no such development setback line is determined; or (cc) Within urban protected areas." 			
12	"The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. d. KZN i. Trans-frontier protected areas managed under international conventions; ii. Community Conservation Areas; iii. Biodiversity Stewardship Programme Biodiversity Agreement areas; iv. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a	Total area of approximately 1000 Ha.	X	The clearance of indigenous vegetation for the placement of infrastructure and related mining activities.

	list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; v. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; vi. Within the littoral active zone or 100 metres inland from high water mark of the sea or an estuarine functional zone, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas; vii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning; viii. A protected area identified in terms of NEMPAA, excluding conservancies; ix. World Heritage Sites, x. Sites or areas identified in terms of an international convention; xi. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose; xii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; or xiii. In an estuarine functional zone."			
14	"The development of - (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs -	Up to 100 000 m², 3 Ha	X	Some infrastructure (plant, pit, WRDS, roads etc) developed for the Jindal MIOP would be within 32 m of a watercourse.

No.	Listed Activity Description	Approx. extent of the activity (Ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
	(a) within a watercourse, (b) in front of a development setback; or (c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour." "d. KZN i. In an estuarine functional zone; ii. Community Conservation Areas; iii. Biodiversity Stewardship Programme Biodiversity Agreement areas. iv. A protected area identified in terms of NEMPAA, excluding conservancies; v. World Heritage Sites; vi. Sites or areas identified in terms of an international convention. vii. Critical biodiversity areas or ecological support areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans, viii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; ix. Core areas in biosphere reserves; x. Outside urban areas: (aa) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any terrestrial protected area identified in terms of NEMPAA or from the core area of a biosphere reserve; or			

No.	Listed Activity Description	Approx. extent of the activity (Ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
	(bb) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined, or xi. Inside urban areas: (aa) Areas zoned for use as public open space; (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose; or (cc) Areas seawards of the development setback line or within 100 metres from the high-water mark of the sea if no such development setback line is determined."			
18	"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre. d. KZN i. Trans-frontier protected areas managed under international conventions; ii. Community Conservation Areas; iii. Biodiversity Stewardship Programme Biodiversity Agreement areas; iv. World Heritage Sites; v. In an estuarine functional zone, vi. A protected area identified in terms of NEMPAA. vii. Sites or areas identified in terms of an international convention, viii. Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans; ix. Core areas in biosphere reserves;	Within total area of approximately 1000 Ha.	X	Widening of existing roads will be required within an area considered to have a high ecological importance, due to the presence and potential occurrence of threatened and protected plant species.

No.	Listed Activity Description	Aerial extent of the activity (Ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
	x. Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose; xi. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority; xii. Outside urban areas: (aa) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any terrestrial protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; or (bb) Areas seawards of the development setback line or within 1 kilometre from the high-water mark of the sea if no such development setback line is determined; or xiii. Inside urban areas: (aa) Areas zoned for use as public open space, (bb) Seawards of the development setback line or within 100 metres from the high-water mark of the sea if no such development setback line is determined; or (cc) Within urban protected areas."			

NEMWA

No.	Listed Activity Description	Aerial extent of the activity (Ha)	Listed Activity (Mark with an X where applicable)	Relevance of listing activity
Category A (Basic Assessment)				
9	The disposal of inert waste to land in excess of 25 tonnes but not exceeding 25 000 tonnes, excluding the disposal of such waste for the purposes of levelling, and building which has been authorized by or under other legislation.	Approximately 400 Ha.	X	The Jindal MIOP will require the disposal of inert waste generated during the construction phase. Will be used for site levelling.
12	The construction of a facility for a waste management activity listed in Category A of this Schedule (not in isolation to associated waste management activity).		X	The Jindal MIOP will require a salvage yard and a temporary waste storage area, etc.
Category B (Scoping and EIA)				
11	The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right, exploration right or production right in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002	460 Ha	X	The Jindal MIOP will require the establishment of a WRD.
Category C (Norms and Standards)				
1	The storage of general waste at a facility that has the capacity to store in excess of 100m^3 of general waste at any one time, excluding the storage of waste in lagoons or temporary storage of such waste.	Approximately 1 Ha	X	Waste storage facility for temporary storage prior to removal from site and disposal at a licensed facility.
2	The storage of hazardous waste at a facility that has the capacity to store in excess of 80m^3 of hazardous waste at any one time, excluding the storage of hazardous waste in lagoons or temporary storage of such waste.	Approximately 1 Ha	X	Storage of used oils or other hazardous waste at a waste storage yard on a temporary basis before removal from site for disposal at a licensed facility.