

TSHIPI É NTLE MANGANESE MINING (PTY) LTD

ALTERNATIVE CLOSURE AND REHABILITATION PROJECT

DEPARTMENT OF MINERAL RESOURCES (DMR) PRE-APPLICATION MEETING MINUTES

Date	02 May 2019
Venue:	Department of Mineral Resources offices in Kimberley
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	720.19136.00001
Purpose:	<p>The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • Provide an overview of the proposed project • Outline the motivation and project alternatives considered • Provide an overview of the environmental process • Provide an overview of specialist studies to be undertaken • Provide an overview and obtain input into the planned public participation process.
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees from Tshipi and the Department of Mineral Resources (DMR) present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation in order to provide an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water
- The opportunities for enhanced land use increase with access to surface water

- An alternative closure option will allow for earlier rehabilitation of waste rock dumps

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised

Issues raised	By whom	Response provided
Can the open pit be backfilled after the underground mining is completed? This approach can be considered as an alternative to changing the backfill commitment.	Ntsundeni Ravhugoni (DMR)	This has been noted and will be commented on as part of the environmental assessment process. Partial backfill could be achieved with collaboration of both mines (Brad Rippon).
As part of the alternative investigation, please also comment on the level of Tshipi's responsibility for the four closure options. Our department is of the opinion that with complete backfill, Tshipi's overall responsibility will be less than a closure option where biodiversity habitats are created that need to be maintained and monitored. As an overall comment, we will wait for the final Environmental Impact Assessment (EIA) and EMPr for the details around the specialist findings of the alternative investigation.	Ntsundeni Ravhugoni (DMR)	Thank you for this input. This will be included as part of the options analysis and will be detailed in the EIA and EMP report (Natasha Smyth – SLR).
Do you have any comments relating to the proposed public participation process outline for the project?	Natasha Smyth (SLR)	We have no comments on the planned public participation process (Ntsundeni Ravhugoni – DMR).
A preliminary review has indicated that	Natasha Smyth	Yes we are. This is in accordance to

Issues raised	By whom	Response provided
no listed activities in terms of the National Environmental Management Act (No 107 of 1998) (NEMA) have been identified for the proposed project. It follows that a substantive amendment process in terms of NEMA will be followed. Is your department familiar with a substantive amendment process?	(SLR)	Chapter 5, Part 2 of the NEMA (Ntsundeni Ravhugoni – DMR).

4. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by NS.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Nthabeleng Paneng	Tshipi	082 633 5693	Nthabeleng@tshipi.co.za
Brad Rip		083 406 9775	bradrip@mwebbiz.co.za
Machella Ramabosa	DMR	053 807 1760	Machella.ramabosa@dmr.co.za
Ntsundeni Ravhugoni		082 828 3904	Ntsundeni.ravhugoni@dmr.gov.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com

APPENDIX 2: PRESENTATION



TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

ALTERNATIVE CLOSURE AND REHABILITATION PROJECT

DMR PRE-APPLICATION MEETING

MAY 2019

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AGENDA

- Welcome and opening
- Overview of the proposed project – including current operations, motivation, description, alternatives
- Environmental process overview
- Overview of specialist studies to be undertaken (where relevant)
- Proposed public participation process
- Close

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CURRENT OPERATIONS

- Tshipi é Ntle Manganese Mining (Tshipi) operates the open pit manganese Tshipi Borwa Mine located on the farms Matawan 331 and Moab 700.
- Tshipi currently holds
 - A Mining Right
 - An Environmental Management Programme Report (EMPr)
 - An Environmental Authorisation for an EIA/EMP Amendment (EMP1) submitted in November 2017 and approved in January 2018.
 - A Water Use Licence (WUL) issued in April 2015.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled.

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MOTIVATION FOR PROPOSED PROJECT

- Recent operation optimisation investigations indicate that when considering technical, commercial, legal, socio-economic and environmental factors - backfilling the open pit is sub-optimal for the following reasons:
 - Backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.
 - The opportunities for enhanced biodiversity habitats and land use increase with a different backfill approach particularly in terms of topographic variety and access to surface water.

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OVERVIEW OF PROPOSED PROJECT

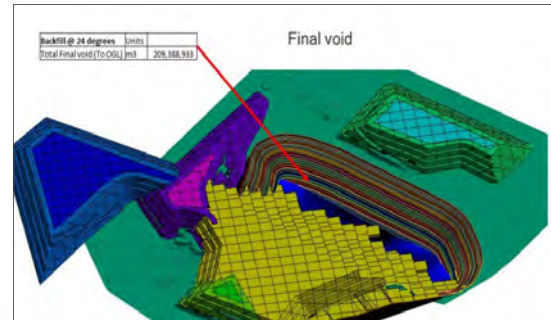
- Tshipi is therefore proposing a new project (Alternative closure and rehabilitation optimisation project) in order to optimise closure objectives and to incorporate new activities that are currently not catered for in the approved EMPR.
- The closure and rehabilitation optimisation project focusses on:
 - Concurrent in-pit dumping within the open pit.
 - Sloping and rehabilitation of waste rock dumps remaining on surface.
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

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LAYOUT



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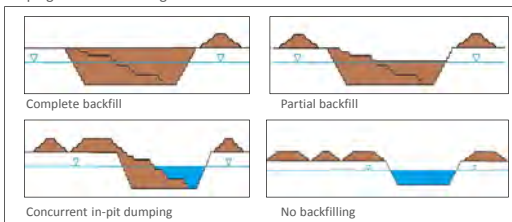


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ALTERNATIVES

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.



- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.

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MOTIVATION AND ALTERNATIVES

Alternative considered	Commercial	Technical	Socio-economic	Environmental				Rehabilitation
				Soils	Biodiversity	Pit lake	Groundwater	
Complete backfill	4	2	4	4	2	2	2	4
Partial backfill	3	2	3	3	3	2	2	3
Concurrent in-pit dumping	1	1	2	2	1	1	2	1
No-backfilling	2	4	1	1	4	4	4	2

- Complete backfill - 24
- Partial backfill - 21
- Concurrent in-pit dumping - 11
- No backfilling - 22

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SUGGESTED ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – Substantive amendment	<ul style="list-style-type: none"> NEMA EA Application Stakeholder engagement EMPR and supporting specialist studies 	DMR
Amend EMPR	Mineral and Petroleum Resources Development Act (No. 28 of 2002)	Section 102 application	DMR

* Preliminary review indicates that no listed activities will be triggered and that a substantive amendment process is required.

ENVIRONMENTAL PROCESS

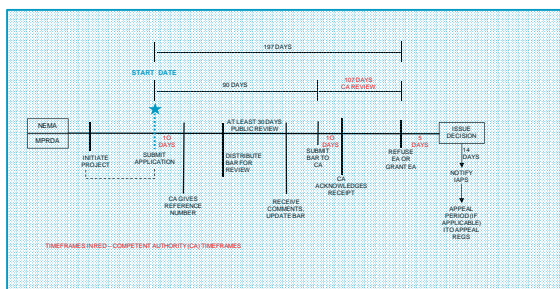
Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor

ENVIRONMENTAL PROCESS



PROPOSED SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR

PUBLIC PARTICIPATION

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR)
- The public participation will cater for both the NEMA 2014 EIA regulations
- The public consultation proposed includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin).
 - Distribute BID informing I&APs and regulatory authorities about the proposed project and related processes.
 - Placement of site notices in two languages (English and Afrikaans).
 - Hold a commenting authority and public meeting.
 - Review of the EMPr and/or summary.

PUBLIC PARTICIPATION

Review of the EMPr:

- Hard copies left at designated venues for review for 30 days. Suggested venues include:
 - John Taolo Gaetsewe District Municipality.
 - Joe Morolong Local Municipality.
 - Hotazel and Black Rock community public libraries.
 - Kuruman and Kathu town libraries.
- Distribution of a summary (English and Afrikaans) via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

DISCUSSION



OFFICE OF THE REGIONAL LAND CLAIMS COMMISSIONER: NORTHERN CAPE

Hyesco Arcade, 4-8 Old Main Road, Kimberley, 8300 | PO Box 2458, Kimberley, 8300
Tel: (053) 807 5700 | Fax: (053) 831 6501

Enquiries: **Pabalelo Mokale**

SLR CONSULTING

1 Macbeth Avenue
Johannesburg
Gauteng
2191

Dear Mr / Ms **C Phase**

LAND CLAIMS ENQUIRY

1. **Portion 8 of the farm Mamatwan 331, portion 16 of the farm Mamatwan 331; portion 17 of the farm Mamatwan 331 portion 18 of the farm Mamatwan 331 and the remaining extent of the farm Moab 700 in the Northern Cape Province.**

We refer to your letter received: **07 June 2018**

We confirm that as at the date of this letter no land claims appear on our database in respect of the Properties. This includes the database for claims lodged by 31 December 1998; and those lodged between 1 July 2014 and 27 July 2016 in terms of the Restitution of Land Rights Amendment Act, 2014.

Whilst the Commission takes reasonable care to ensure the accuracy of the information it provides, there are various factors that are beyond the Commission's control, particularly relating to claims that have lodged but not yet been gazetted such as:

1. Some Claimants referred to properties they claim dispossession of rights in land against using historical property descriptions which may not match the current property description; and
2. Some Claimants provided the geographic descriptions of the land they claim without mentioning the particular actual property description they claim dispossession of rights in land against.

The Commission therefore does not accept any liability whatsoever if through the process of further investigation of claims it is found that there is in fact a land claim in respect of the above property.

If you are aware of any change in the description of the above property after 19 June 1913 kindly supply us with such description so as to enable us to do a further search.

Yours faithfully



Ms. M. Du Toit

Chief Director: Land Restitution Support-Northern Cape

Date: 07.06.2018



TSHIPI É NTLÉ MANGANESE MINING (EDMS.) BPK AGTERGRONDINLIGTINGSDOKUMENT

ALTERNATIEWE SLUITINGS- EN REHABILITASIE-OPTIMALISERINGSPROJEK BY DIE TSHIPI BORWA-MYN JUNIE 2019

INLEIDING

Tshipi é Ntle Manganese Mining (Edms.) Bpk. (Tshipi) bedryf die Tshipi Borwa-myn op die plaas Mamatwan 331 en Moab 700, wat sowat 18 km suid van Hotazel in die John Taolo Gaetsewe Distriksmunisipaliteit in die Noord-Kaapprovinsie geleë is (sien Figuur 1). Tshipi beskik tans oor die volgende magtigings:

- 'n Mynreg (NC/30/5/1/2/2/0206MR) wat deur die Departement van Minerale Hulpbronne (DMH) uitgereik is;
- 'n Omgewingsbestuursprogramverslag (OBPr), as gewysig, wat deur die DMH goedgekeur is;
- 'n Omgewingsmagtiging (NC/30/5/1/2/2/206/000083 EM) wat deur die DMH uitgereik is; en
- 'n Watergebruiklisensie (IWUL) (10/D41K/AGJ/1735) wat deur die Departement van Water en Sanitasie uitgereik is.

Die goedgekeurde OBPr verbind Tshipi daartoe om die oppervlak na die voor-ontginningstoestand van wildernis en weiding te herstel en vereis dat die oopgroef teruggevol word. Onlangse ondersoeke met betrekking tot bedryfsoptimalisering dui daarop dat die volledige terugvulling van die oopgroef sub-optimaal is wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word. Derhalwe doen Tshipi aan die hand om die huidige sluitingsverbintenis te verander om 'n meer volhoubare en geoptimaliseerde uitkoms te verwesenlik.

OMGEWINGSMAGTIGING

Voor die aanvang van die beoogde projek, word die volgende vereis:

- 'n Omgewingsmagtiging deur die DMH ingevolge die Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998). Die Regulasies op Omgewingsimpakevaluering wat gevolg word, is Staatskennisgewing R982 van 4 Desember 2014, soos gewysig. Die beoogde projek sal onder andere aanleiding gee tot 'n gelyste aktiwiteit ingevolge Lyskennisgewing 1 van Staatskennisgewing R983, gevolglik sal 'n Basiese Evalueringproses gevolg word.

DOEL VAN HIERDIE DOKUMENT

Hierdie dokument is opgestel deur SLR Consulting (Africa) (Edms.) Bpk. (SLR) om u toe te lig oor:

- Die beoogde projek;
- Die grondlynomgewing van die huidige projekgebied;
- Die omgewingsevalueringproses wat gevolg word (Basiese Evalueringproses);
- Moontlike omgewings-/kultuur-/sosio-ekonomiese impakte;
- hoe u kan deel neem en insette in die omgewingsevalueringproses kan lower.

SLR, 'n onafhanklike firma van omgewingskonsultante, is deur Tshipi aangestel om die omgewingsevalueringproses te bestuur.

U ROL

U is as 'n belangstellende en/of geaffekteerde party (B&GP) geïdentifiseer wat dalk ingelig wil word oor die beoogde projek en insae in die Basiese Evalueringproses wil hê.

U het 'n geleentheid om insae tot hierdie dokument te hê en om u aanvanklike kommentaar aan SLR te voorsien vir insluiting in die Basiese Evalueringproses. U sal ook die geleentheid kry om insette te lewer deur insae tot en kommentaar op die Basiese Evalueringverslag.

Alle kommentaar sal aangeteken en ingesluit word in die verslae wat by die DMH ingedien gaan word vir besluitneming.

HOE OM TE REAGEER

Reaksie op hierdie dokument kan by wyse van die aangehegte kommentaarvorm en/of deur kommunikasie met die persoon wat hieronder genoem word, ingedien word.

WIE OM TE KONTAK

Natasha Smyth

Tel: 011 467 0945, Faks: 011 467 0978 of E-pos

nsmyth@slrconsulting.com

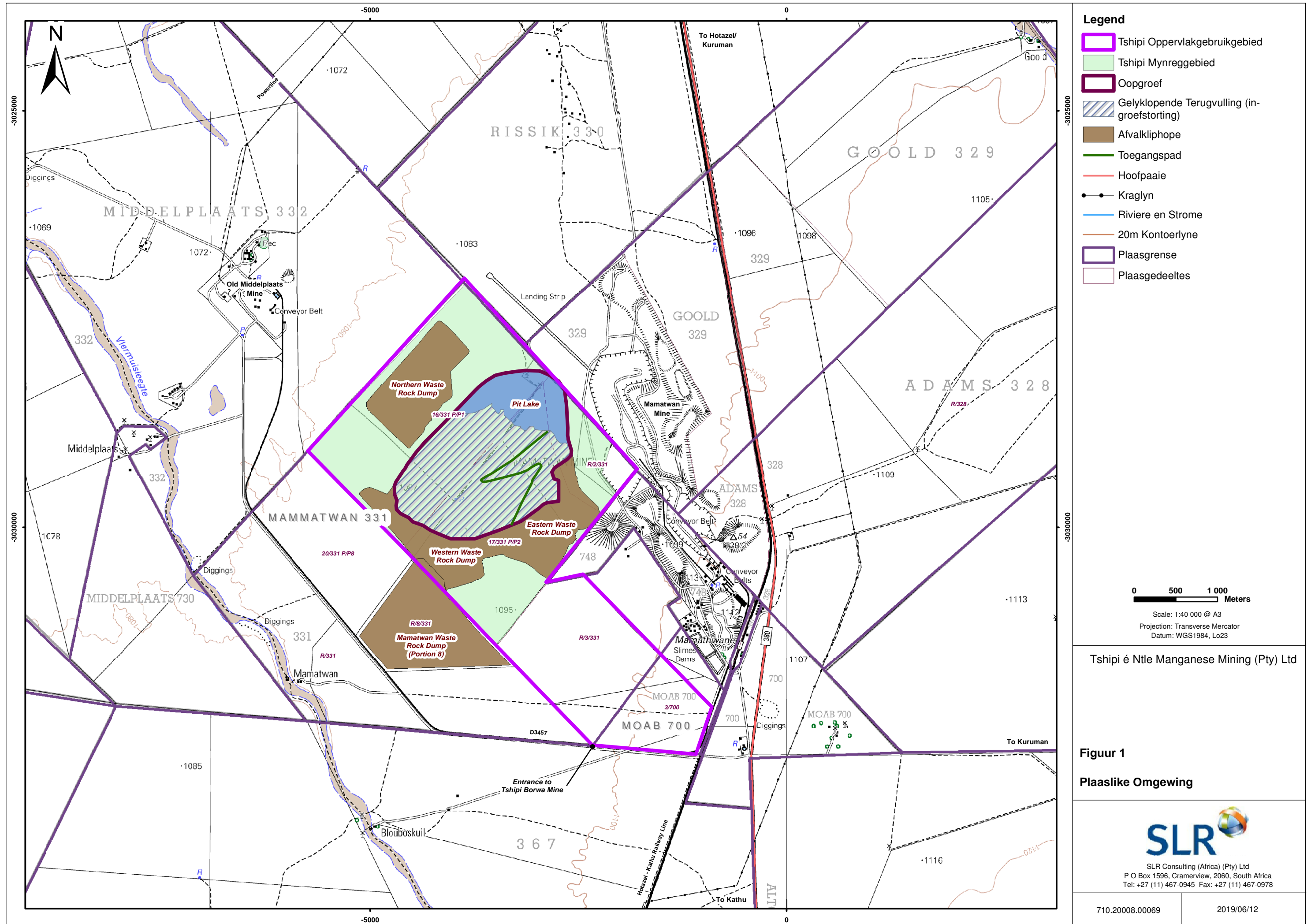
OPENBARE VERGADERING

'n Openbare vergadering is as deel van die openbare deelnameproses gereël:

Plek: Sishen Golf- en Buiteklub (Gemsbok Conference room- Main Club)
(Hans Coetzeestraat, Kathu)

Tyd: 10h00

Datum: 26 Junie 2019



OORSIG EN PROJEK MOTIVERING

Tshipi bedryf tans die Tshipi Borwa-mangaanmyn wat geleë is op die plaas Mamatwan 331 (mynreg- en oppervlakgebruikgebied) en Moab 700 (oppervlakgebruikgebied) (Figuur 1). Belangrike myninfrastruktuur sluit in 'n oopgroef, vervoerweë, afsetgebied vir onbehandelde erts, 'n primêre vergruiser, 'n sekondêre vergruisings- en siftingsaanleg, verskeie stapelwerwe vir vergruisde en produkerts, 'n uitlaaifasiliteit vir 'n trein, 'n privaat sylyn, kantore, werksinkels en bygeboue, 'n toegangsbeheer-fasiliteit, verskeie toegangspaaie, dieselkragopwekkerhuis, elektriese netwerk, skoon- en vuilwaterbergingsdamme, waternetwerkpylyne en dreine, bogrondstapels en afvalkliphope. Die myn het 'n verwagte leeftyd van sowat 25 jaar en is al vir sewe jaar in bedryf.

Die goedgekeurde OBPr verbind Tshipi daartoe om die oppervlak na die voor-ontginningstoestand van wildernis en weiding te herstel en vereis dat die oopgroef teruggevol word. Weens die volgende redes dui onlangse bedryfsoptimaliseringsondersoekes daarop dat die volledige terugvulling van die oopgroef sub-optimaal is wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word:

- Die geleentheid vir verbeterde biodiversiteits-habitats met 'n ander terugvullingsbenadering, veral ten opsigte van topografiese verskeidenheid en toegang tot oppervlakwater.
- Die geleentheid vir verbeterde grondgebruik verbeter met toegang tot oppervlakwater.
- 'n Alternatiewe sluitingsopsie sal vroeëre rehabilitasie van afvalkliphope moontlik maak.
- Volledige terugvulling van die oopgroef sal 'n ondergrondse hulpbron, wat noord van die huidige goedgekeurde oopgroef geleë is, waarskynlik steriliseer. Die gepaardgaande verlies aan werk, verkryging, belastings en buitelandse valuta-verdienste is wesenlik en sal 'n materiële netto verlies vir die streek en die land wees.

Derhalwe doen Tshipi aan die hand om die huidige sluitingsverbintenis (volledige terugvulling van die oopgroef) te verander na gelyklopende in-groefstorting. Ten opsigte hiervan, konsentreer die beoogde projek op:

- Slegs gelyklopende terugvulling, d.i. in-groefstorting slegs tydens mynboubedrywighede;
- Glooiing en rehabilitasie van afvalkliphope wat op die oppervlak agterbly;
- Toegang tot geredelik beskikbare toekomstige watervoorsiening; en
- Die optimalisering van die oppervlakgrondvorms en gedeeltelik teruggevolde groef vanuit 'n perspektief van biodiversiteit, rehabilitasie-, grondgebruik en besoedelingsvoorkoming.

KONSEPTUELE ALTERNATIEWE WAT OORWEEG WORD

Die alternatiewe wat vir die sluitings- en rehabilitasie-optimaliseringsprojek oorweeg word, sluit in:

- Volledige terugvulling: Terugvulling van die uiteindelijke groefgat ná ontginning tot op die oorspronklike grondvlak, voor rehabilitasie van die oppervlak volgens die huidige goedgekeurde OBPr
- Gedeeltelike terugvulling: Terugvulling van die uiteindelijke groefgat ná ontginning tot op 'n vlak net bo die terugslagwatertafelvlak, sowat 50 m onder die oorspronklike grondvlak, voor rehabilitasie van die oppervlak.
- Gelyklopende terugvulling (in-groefstorting): Terugvulling van die groefgat wat net gelyklopend met ontginning geskied, ook in-groefstorting genoem, wat 'n uiteindelijke groefgat tot gevolg het wat 'veilig gemaak' (geprofileer) sal word, voor rehabilitasie van die oppervlak.
- Geen terugvulling: Geen terugvulling van die groef nie, hetsy gelyklopend met ontginning of ná ontginning, d.i. alle afvalklip gaan na oppervlakhope. Die groef se sywande en koplante sal net 'veilig gemaak' word.

Die alternatiewe is oorweeg met insette van spesialiste (waar tersaaklik): Spesialisbevindinge het getoon dat gelyklopende terugvulling, d.i. in-groefstorting, die optimale opsie is vanuit 'n omgewings-, sosio-ekonomiese, tegniese en kommersiële perspektief. Die gedetailleerde evaluering van alternatiewe sal in die BEV voorsien word.

GRONDLYNOORSIG

Hieronder volg 'n basiese beskrywing van die omgewing se huidige status.

Geologie:

Die Tshipi Borwa-myn is geleë in die Kalahari Mangaanveld en is bedek deur gruis, klei, kalkkreet en eoliese sand van die Kalaharigroep.

Klimaat:

Die Tshipi Borwa-myn is geleë in die Noordelike Steppe Klimaatzone. Dit is 'n semi-ariëde streek, gekenmerk deur seisoenale reënval, warm temperature in die somer en kouer temperature in die winter. Reënval wissel tussen 1,3 mm en 72,3 mm per maand en heersende winde in die gebied is vanuit die noorde en noordooste.

Topografie:

Die Tshipi Borwa-myn is geleë in 'n betreklik plat gebied met geleidelike hellings. Die natuurlike omgewing en interne topografie is beïnvloed deur bestaande mynboubedrywighede.

Grondsoorte en grondvermoë:

Grond by die Tshipi Borwa-myn bestaan uit struktuurlose, diep (>1 200 mm), sanderige, rooi en geel grondsoorte van die Huttonvorm. Sonder besproeiing, het grondsoorte by die myn 'n lae verbouingspotensiaal weens hoë infiltrasietempo's wat verband hou met sanderige grond. Weens die fyn, sanderige aard van die grondvorme en die lae klei-inhoud en beperkte organiese stowwe, is die grondsoorte hoogs erodeerbaar, veral waar plantegroei verwyder is. Grondhulpbronne en verwante grondvermoë is beïnvloed deur bestaande mynboubedrywighede.

Dierelewe:

Weens die teenwoordigheid van mynbou, prosperteerwerke en boerderybedrywighede, is daar baie min bewyse van wilde dierbevolkings wat met die beoogde projekgebied geassosieer word. Voëlspesies op die rooidatyls wat waarskynlik in die beoogde projekgebied voorkom, sluit in die Breëkoparend, Sekretarisvoël en die Afrika Witruugaasvoël. Dierspesies op die rooidatyls wat waarskynlik voorkom, sluit in die ratel en die Suid-Afrikaanse krimparkie.

Plantlewe:

Die Tshipi Borwa-myn val in die Kathu Bosveld en die Griekwaland-wessentrum van Endemisme. Die beskermde *Vachellia erioloba* (Kameeldoring) en *Vachellia haematoxylon* (Grys Kameeldoring) word by die myn aangetref. Die plantbevolking by die myn is reeds deur bestaande mynboubedrywighede versteur.

Oppervlakwater:

Die Tshipi Borwa-myn is geleë in die opvangsgebied van die Ga-Moragarivier, 'n sytak van die Kurumanrivier en vloei by die Oranjerivier in. Afloop vanaf Tshipi dreineer weswaarts in die rigting van die Vlermuisleegterivier wat net tydens hoë reënvalgebeurtenisse vloei. Daar is geen derdeparty-afhanklikheid op oppervlakwater nie. Daar is geen vleilande in die gebied nie. Bestaande mynboubedrywighede het die natuurlike dreineringspatrone op die terrein en die verwante bydraes van afloop na die opvangsgebied beïnvloed.

Grondwater:

Die Tshipi Borwa-myn word onderlê deur 'n vlak, onbegrensde Kalahari-akwifer en die dieper, gefraktueerde Hotazelakwifer. Die myn se gemiddelde grondwatervlak wissel tussen 41 m en 74 m onder grondvlak. Die meeste van die derdepartyboorgate om die myn word vir veesuipings gebruik.

Luggehalte: Die omringende luggehalte is beïnvloed deur myne, die verbranding van huishoudelike brandstof, voertuie se uitlaatgasse en landboubedrywighede.

Geraas:

Die gebied en omstreke word oor die algemeen as plattelands omskryf. Geraasvlakke naby die Tshipi Borwa-myn word hoofsaaklik deur omliggende boerderybedrywighede, plaaslike verkeer en mynboubedrywighede veroorsaak.

Visueel:

Die gebied suidwes, noord en wes van die Tshipi Borwa-myn kan beskryf word as 'n plat, oop gebied met dreineringslyne en oop uitsigte van bosveld wat visueel dominant is en oor 'n hoë sigwaarde beskik. Gebiede noord en oos van die Tshipi Borwa-myn word geag as gebiede met 'n lae sigwaarde weens die teenwoordigheid van naburige myne (Mamatwan-myn en United Manganese of Kalahari (Edms.) Bpk.), infrastruktuur (pad, spoor en kraglyne) en die Adams Sonkragspark. Die versteurde gebiede in die myn se gebied van oppervlakgebruik het 'n lae sigwaarde.

Erfenis-/Kultuurhulpbronne:

Geen erfenis-/kultuur-terreine is by die Tshipi Borwa-myn geïdentifiseer nie. Die terrein se paleontologiese sensitiviteit is laag, hoewel daar 'n moontlikheid van aanwesige Stromatoliete in die projekgebied is.

Sosio-ekonomies:

Die dorp Hotazel is sowat 18 km noord van die Tshipi Borwa-myn geleë. Die opvoedingsvlakke in die gebied is betreklik laag met 'n hoë werkloosheidsvlak en 'n afhanklikheid van bestaansboerdery, die openbare sektor, seisoenswerkers en emplojering in die mynbousektor. Watervoorsiening en sanitasie bly 'n uitdaging, veral in die landelike gebiede. Daar was 'n toename in die aantal huishoudings in die gebied wat elektrisiteit as kragbron ontvang het. Mynbou en staatsdienste is die primêre ekonomiese sektore.

Grondgebruik:

Grondgebruik om die Tshipi Borwa-myn sluit in 'n kombinasie van weiding vir lewendehawe, wildsboerdery, mynbou, 'n sonkragsplaas en ylgesaaide wonings. Grondgebruik by die myn is beïnvloed deur bestaande mynboubedrywighede.

POTENSIËLE OMGEWINGS- EN SOSIO-EKONOMIESE IMPAKTE EN VERWANTE SPESIALISINSETTE

Potensiële impakte wat geïdentifiseer is en as deel van die omgewingsimpakevalueringsproses ondersoek sal word, verskyn in die tabel hieronder. Waar spesialisinsette vereis word, is dit ook aangedui in die tabel hieronder.

Aspek	Potensiële omgewings- en sosio-ekonomiese impakte	Spesialisinset (waar nodig)
Biofisies		
Grond en grondvermoë	<ul style="list-style-type: none"> Met toegang tot gereedlik beskikbare watervoorsiening in die toekoms, het die beoogde projek die potensiaal om die optimale gebruik van grondhulpbronne te bevorder om alternatiewe grondgebruike (bv. landbou) te versterk. 	Terra Africa
Biodiversiteit – Akwaties	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om akwatiese habitats te skep en te verbeter deur die beskikbaarheid van 'n funksionele groefmeer, wat op sy beurt die kompleksiteit van biodiversiteit, diversiteit, gemeenskapsensitiwiteit en algehele gemeenskapstabiliteit kan vergroot. 	Scientific Aquatic Services CC
Biodiversiteit – Terrestries	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om fauna- en floraspesiebevolkings te vermeerder deur die herskepping van 'n terrestriese habitat deur toegang tot 'n funksionele groefmeer, wat andersins beperk sou wees as gevolg van 'n gebrek aan stabiele varswaterhabitats. 	Scientific Terrestrial Services CC
Oppervlakwater	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om toegang te bied tot 'n gereedlik beskikbare toekomstige watervoorsiening (groefmeer) wat vir 'n alternatiewe grondgebruik gebruik kan word. 	SLR Consulting (Africa) (Edms.) Bpk.
Grondwater	<ul style="list-style-type: none"> Die beoogde projek het die potensiaal om die omvang van 'n besoedelingspluim wat ekstern kan migreer, te minimaliseer. 	
Lug	<ul style="list-style-type: none"> Sonder rehabilitasie, kan die beoogde projek stof genereer wat die wind vanaf 'n groter blootgestelde gebied kan waai. 	Airshed Planning Professionals (Edms.) Bpk.
Geraas	<ul style="list-style-type: none"> Geen opmerklike geraasimpakte is te wagte as gevolg van sluiting nie, maar geraas kan deur toekomstige na-sluitings grondgebruikbedrywighede gegeneer word. 	
Visueel	<ul style="list-style-type: none"> Sonder rehabilitasie, kan die beoogde projek algemene negatiewe visuele uitsigte tot gevolg hê weens afvalkliphope wat ná sluiting op die oppervlak sal bly. Met rehabilitasie sal visuele impakte verbeter word. 	Graham A Young
Sosio-ekonomies		
Ekonomies	<ul style="list-style-type: none"> Die beoogde projek kan 'n positiewe netto ekonomiese impak op die nasionale, plaaslike en streekse ekonomie hê deur doeltreffende ontginning van toekomstige ondergrondse hulpbronne noord van die huidige oopgroef, moontlik te maak. 	Mercury
Maatskaplike voordele	<ul style="list-style-type: none"> Alternatiewe grondgebruik kan alternatiewe werk- en ekonomiese ontwikkeling verbeter, wat die lewens van individue wat in die plaaslike gebied woon, op sy beurt kan verbeter. 	Kwalitatiewe evaluering
Gevoel van plek	<ul style="list-style-type: none"> Deur 'n alternatiewe grondgebruik met sluiting te vestig, sal die beoogde projek die aard van die terrein verander en kan dit deur omliggende grondgebruikers as hetsy positief of negatief ervaar word. 'n Alternatiewe sluitingsopsie sal vroeëre rehabilitasie van afvalkliphope moontlik maak, wat die status van rehabilitasie met sluiting sal beïnvloed om impakte gevolglik te minimaliseer. 	Kwalitatiewe evaluering
Veiligheid van derdepartye	<ul style="list-style-type: none"> Sonder rehabilitasie, sal die beoogde projek 'n deels oop oopgroef tot gevolg hê, wat skadelik kan wees vir derdepartye en diere. Versagting kan die grond veilig maak. 	Kwalitatiewe evaluering
Grondgebruik	<ul style="list-style-type: none"> Die vestiging van 'n funksionele groefmeer kan alternatiewe grondgebruike verbeter wat verband hou met toegang tot oppervlakwater en meer biodiversiteit. 	Kwalitatiewe evaluering

STAPPE IN DIE OMGEWINGSMAGTIGINGSPROSES

Die omgewingsevalueringproses:

- Bied inligting oor die projek en die omgewing waarin dit onderneem word;
- Identifiseer die potensiële negatiewe en positiewe omgewings- en sosio-ekonomiese impakte van die beoogde projek in oorleg met B&GP's; en
- Doen verslag oor bestuursmaatreëls wat vereis word om impakte tot op 'n aanvaarbare vlak te versag en inkorporeer vereistes vir ná-sluitingsmonitering (waar nodig).

Die proses se waarskynlike stappe en tydsraamwerke word hieronder uiteengesit.



OPENBARE DEELNAMEPROSES

Die doel van die openbare deelnameproses is om B&GP's en owerhede wat kommentaar lewer in kennis te stel van die beoogde projek en om hulle 'n geleentheid te bied om kwessies of knelpunte met betrekking tot die beoogde projek te opper. Die openbare deelnameproses sal onderneem word ingevolge die vereistes van Hoofstuk 6 van Regulasie 982 van 4 Desember 2014 (OIE-regulasies), soos gewysig. Partye wat betrokke is by die omgewingsmagtigingsproses, word hieronder uiteengesit.

PARTYE BETROKKE BY DIE OMGEWINGSMAGTIGINGSPROSESSE

B&GP's

- * Omliggende grondeienaars, grondgebruikers en gemeenskappe
- * Omliggende myne en nywerhede
- * Nie-regeringsorganisasies en verenigings
- * Semi-staatsinstellings

BEVOEGDE OWERHEID

- * Departement van Minerale Hulpbronne end Energie

OWERHEDE WAT KOMMENTAAR LEWER

- * Noord-Kaapse Departement van Omgewingsake en Natuurbewaring (DENC)
- * Departement van Omgewingsake, Bosbou en Visserye
- * Noord-Kaapse Departement van Landelike Ontwikkeling en Grondhervorming (DRDLR) – met insluiting van die Kommissaris van Grondeise
- * Departement van Menslike Nedersetting, Water en Sanitasie

PLAASLIKE OWERHEDE

- * John Taolo Gaetsewe Distriksmunisipaliteit
- * Joe Morolong Plaaslike Munisipaliteit (met insluiting van wyksraadslid)

Stel ons asseblief in kennis as daar nog partye is wat betrokke moet wees.

**TSHIPI É NTLÉ MANGANESE MINING (EDMS.) BPK.
AGTERGRONDINLIGTINGSDOKUMENT
ALTERNATIEWE SLUITINGS- EN REHABILITASIEPROJEK BY DIE TSHIPI BORWA-MYN**

JUNIE 2019

REGISTRASIE- EN ANTWOORDVORM VIR BELANGSTELLEND EN GEAFFEKTEERDE PARTYE

DATUM		TYD	
BESONDERHEDE VAN DIE BELANGSTELLEND EN GEAFFEKTEERDE PARTY			
NAAM			
POSADRES			
STRAATADRES		POSKODE	
		POSKODE	
TELEFOONNOMMER BY DIE WERK/BEDAGS		FAKSNOMMER BY DIE WERK/BEDAGS	
SELFOONNOMMER		E-POSADRES	

MAAK ASSEBLIEF U BELANG BY DIE BEOOGDE PROJEK BEKEND

SKRYF U KOMMENTAAR EN VRAE ASSEBLIEF HIER NEER

Stuur ingevulde vorms asseblief terug aan:

Natasha Smyth

SLR Consulting (Africa) (Edms.) Bpk.

E-pos: nsmyth@slrconsulting.com

Tel: 011 467 0945

Faks: 011 467 0978

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD BACKGROUND INFORMATION DOCUMENT

ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA MINE JUNE 2019

INTRODUCTION

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province (refer to Figure 1). Tshipi currently holds the following material authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the DMR, as amended;
- An environmental authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

ENVIRONMENTAL AUTHORISATION

Prior to the commencement of the proposed project, the following is required:

- An environmental authorisation from the DMR in terms of the National Environmental Management Act No. 107 of 1998. The Environmental Impact Assessment Regulations being followed are Government Notice Regulation (GNR) 982 of 4 December 2014, as amended. A listed activity in terms of Listing Notice 1 GNR 983 will be triggered as part of the proposed project and as such a Basic Assessment Process will be followed.

PURPOSE OF THIS DOCUMENT

This document has been prepared by SLR Consulting (Africa) (Pty) Ltd (SLR) to inform you about:

- The proposed project
- The baseline environment of the current project area
- The environmental assessment process being followed (Basic Assessment Process)
- Possible environmental/cultural/socio-economic impacts
- How you can participate in and have input into the environmental assessment process.

SLR, an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

YOUR ROLE

You have been identified as an interested and/or affected party (I&AP) who may want to be informed about the proposed project and have input into the Basic Assessment process.

You have an opportunity to review this document and provide your initial comments to SLR for incorporation in the Basic Assessment process. You will also be given the opportunity to provide input through review and comment on the Basic Assessment Report.

All comments will be recorded and included in the reports submitted to the DMR for decision-making.

HOW TO RESPOND

Responses to this document can be submitted by means of the attached comments sheet and/or through communication with the person listed below.

WHO TO CONTACT

Natasha Smyth
(011) 467 0945 (Tel) or (011) 467 0978 (Fax) or
nsmyth@slrconsulting.com

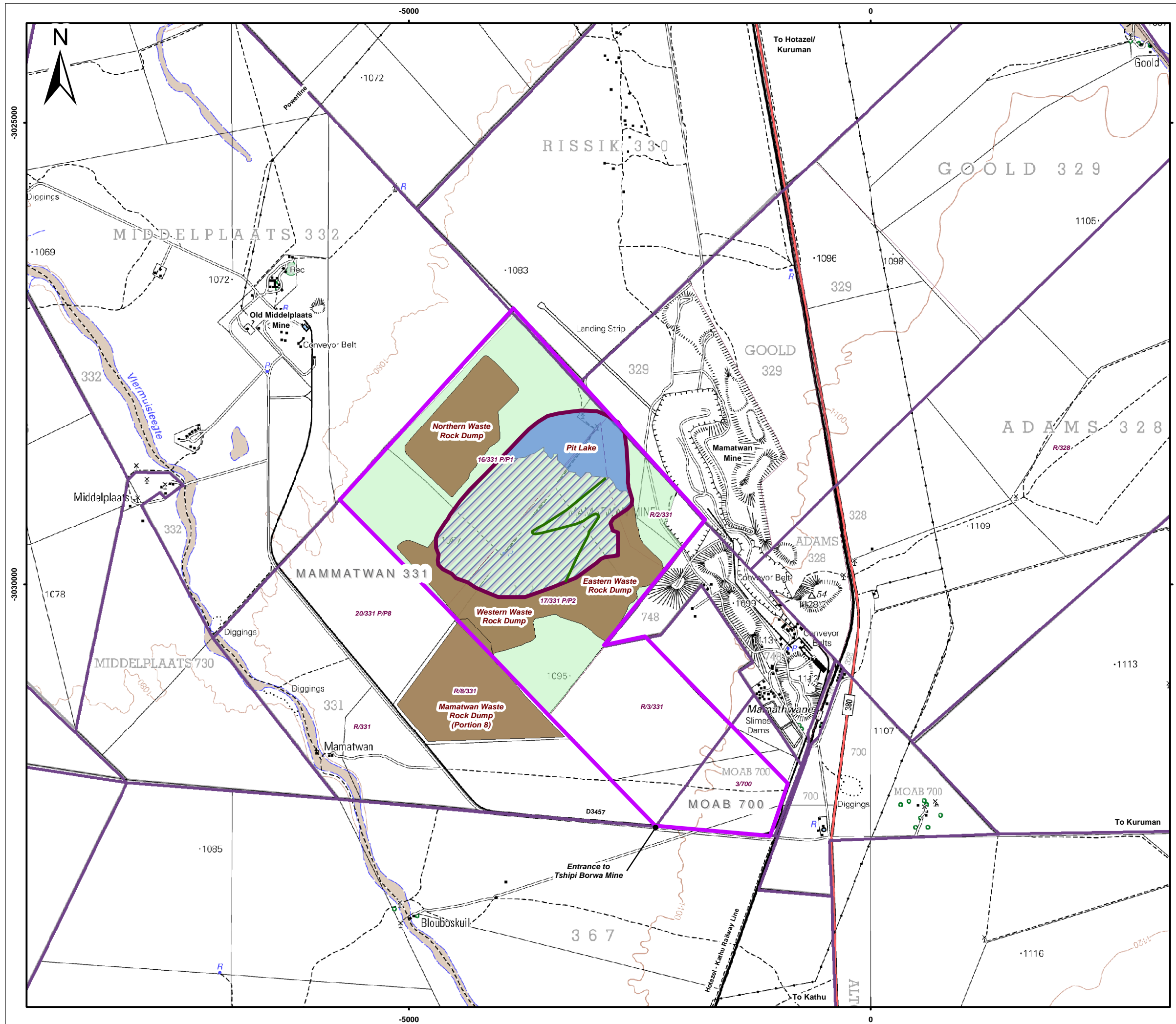
PUBLIC MEETING

A public meeting has been arranged as part of the public participation process:

Venue: Sishen Golf and Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee street, Kathu)

Time: 10h00

Date: 26 June 2019



- Legend**
- Tshipi Surface Use Area
 - Tshipi Mining Right Area
 - Open Pit
 - Concurrent In-Pit Dumping
 - Waste Rock Dumps
 - Access Road
 - Main Roads
 - Power Line
 - Rivers and Streams
 - 20m Contour Lines
 - Farm Boundaries
 - Farm Portions

0 500 1 000 Meters
 Scale: 1:40 000 @ A3
 Projection: Transverse Mercator
 Datum: WGS1984, Lo23

Tshipi é Ntle Manganese Mining (Pty) Ltd

Figure 1
 Local Setting

SLR
 SLR Consulting (Africa) (Pty) Ltd
 P O Box 1596, Cramerville, 2060, South Africa
 Tel: +27 (11) 467-0945 Fax: +27 (11) 467-0978

OVERVIEW AND PROJECT MOTIVATION

Tshipi currently operates the Tshipi Borwa (manganese) Mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area) (Figure1). Key mine infrastructure includes an open pit, haul roads, run-of mine ore tip, a primary crusher, a secondary crushing and screening plant, various stockpiles for crushed and product ore, a train load-out facility, a private siding, offices, workshops, warehouses and ancillary buildings, an access control facility, various access roads, diesel generator house, electrical reticulation, clean and dirty water storage dams, water reticulation pipelines and drains, topsoil stockpiles and waste rock dumps. The mine has an anticipated life of mine of approximately 25 years and has been operational for seven years.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface;
- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

CONCEPTUAL ALTERNATIVES CONSIDERED

The alternatives considered for the closure and rehabilitation optimisation project include:

- **Complete backfill:** Backfill of the final pit void post mining to original ground level, before rehabilitation of the surface as per the current approved EMPr
- **Partial backfill:** Backfill of the final pit void post mining to a level just above the rebound water-table level, approximately 50m below original ground level, before rehabilitation of the surface.
- **Concurrent backfill (In-pit dumping):** Backfill of the pit void concurrent with mining only, also called in-pit dumping, which results in a final pit void which will be 'made safe' (profiled) before rehabilitation of the surface.
- **No backfill:** No backfill of the pit either concurrent with mining or post mining i.e. all waste rock to surface dumps. The pit side-walls and end-walls will only be 'made safe'.

The alternatives have been considered with input from specialists (where relevant). Specialist findings have indicated that concurrent backfill i.e. in-pit dumping is the optimal option from an environmental, socio-economic, technical and commercial perspective. The detailed alternatives assessment will be provided in the BAR.

BASELINE OVERVIEW

Below is a basic description of the existing status of the environment:

Geology:

The Tshipi Borwa Mine falls in the Kalahari Manganese Field and is covered by gravels, clays, calcretes and aeolian sands of the Kalahari Group.

Climate:

The Tshipi Borwa Mine falls within the Northern Steppe Climatic Zone. It is a semi-arid region characterised by seasonal rainfall, hot temperatures in summer, and colder temperatures in winter. Rainfall ranges from 1.3 mm to 72.3 mm per month and winds from the north, north-east are dominant in the area.

Topography:

The Tshipi Borwa Mine is located in a relatively flat area with gentle slopes. The natural surrounding and on-site topography has been influenced by existing mining activities.

Soils and land capability:

Soils at the Tshipi Borwa Mine comprise structureless, deep (>1 200 mm), sandy, red and yellow soils of the Hutton form. In the absence of irrigation, Soils at the mine have a low cultivation potential due to the high infiltration rates associated with sandy soils. Due to the fine sandy nature of the soil forms and the low clay content and limited organic matter, the soils are highly erodible, particularly where vegetation is removed. Soil resources and related land capability have been influenced by existing mining activities.

Animal life:

Limited evidence of wild faunal populations is associated with the proposed project area due to the presence of mining, prospecting and farming activities. Red data bird species that are likely to occur within the proposed project area include the Martial Eagle, Secretary bird and the African Whitebacked Vulture. Red data mammal species likely to occur include the honey badger and the South African Hedgehog.

Plant life:

The Tshipi Borwa Mine falls within the Kathu Bushveld and the Griqualand West Centre of Endemism. The protected *Vachellia erioloba* (Camel Thorn) and *Vachellia haematoxylon* (Grey Camel Thorn) occur at the Mine. The plant population at the mine has already been disturbed by existing mining activities.

Surface water:

The Tshipi Borwa Mine falls within the catchment of the Ga-Mogara River, a tributary of the Kuruman River and flows into the Orange River. Runoff from Tshipi drains west towards the Vlermuisleegte River that only flows during high rainfall events. There is no third-party reliance on surface water. No wetlands are located in the area. Existing mining activities have influenced the natural drainage patterns on site and the related contributions of runoff to the catchment.

Groundwater:

The Tshipi Borwa Mine is underlain by a shallow unconfined Kalahari Aquifer and the deeper fractured Hotazel Aquifer. The average ground water level at the mine ranges from 41 to 74 metres below ground level. The majority of third-party boreholes surrounding the mine are used for livestock watering purposes.

Air quality:

Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.

Noise:

The greater area is generally defined by rural features. Noise levels near the Tshipi Borwa Mine are mainly as a result of surrounding farming activities, localised traffic and mining operations.

Visual:

The area southwest, north and west of the Tshipi Borwa Mine can be described as a flat open area with drainage lines and open views of bushveld which are visually dominant and has a high visual value. Areas to the north and east of the Tshipi Borwa Mine are considered to have a low visual value due to the presence of neighbouring mines (Mamatwan Mine and United Manganese of Kalahari (Pty) Ltd), infrastructure (road, rail and powerlines) and the Adams solar park. The disturbed areas within the mine's surface use area have a low visual value.

Heritage/cultural resources:

No heritage/cultural sites have been identified at the Tshipi Borwa Mine. The palaeontological sensitivity of the site is low, although there is a possibility of Stromatolites being present in the project area.

Socio-economic:

The town of Hotazel is located approximately 18m north of the Tshipi Borwa Mine. The educational levels in the area are relatively low with a high level of unemployment and a dependency on subsistence agriculture, the public sector, seasonal workers and employment in the mining sector. Water provision and sanitation remains a challenge, mostly in the rural areas. There has been an increase in the number of households that were provided with electricity as a source of energy in the area. Mining and government services are the main economic sectors.

Land use:

Land uses surrounding the Tshipi Borwa Mine include a combination of livestock grazing, game farming, mining, a solar farm and sparsely situated residences. Land use at the Mine has been influenced by existing mining activities.

POTENTIAL ENVIRONMENTAL AND SOCIO-ECONOMIC IMPACTS AND RELATED SPECIALIST INPUT

Potential impacts that have been identified and will be investigated as part of the environmental impact assessment process are tabulated below. Where specialist input is required this has been indicated in the table below.

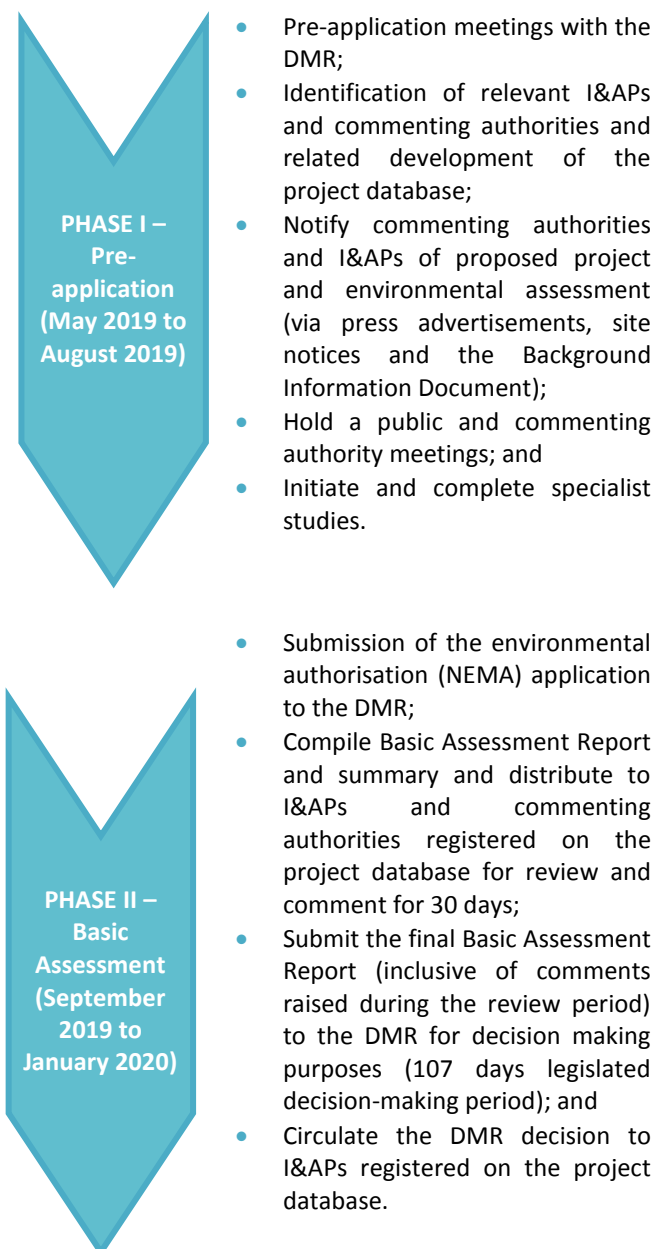
Aspect	Potential environmental and socio-economic impacts	Specialist input (where required)
Biophysical		
Soils and land capability	<ul style="list-style-type: none"> With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture). 	Terra Africa
Biodiversity - Aquatic	<ul style="list-style-type: none"> The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability. 	Scientific Aquatic Services CC
Biodiversity – Terrestrial	<ul style="list-style-type: none"> The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats. 	Scientific Terrestrial Services CC
Surface water	<ul style="list-style-type: none"> The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use. 	SLR Consulting (Africa) (Pty) Ltd
Groundwater	<ul style="list-style-type: none"> The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site. 	
Air	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area. 	Airshed Planning Professionals (Pty) Ltd
Noise	<ul style="list-style-type: none"> No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities. 	
Visual	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation. 	Graham A Young
Socio-economic		
Economics	<ul style="list-style-type: none"> The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit. 	Mercury
Social benefits	<ul style="list-style-type: none"> Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area. 	Qualitative assessment
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts. 	Qualitative assessment
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe. 	Qualitative assessment
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity. 	Qualitative assessment

STEPS IN THE ENVIRONMENTAL AUTHORISATION PROCESS

The environmental assessment process provides:

- Information on the project and environment in which it is being undertaken;
- Identifies, in consultation with I&APs, the potential negative as well as positive environmental and socio-economic impacts of the proposed project; and
- Reports on management measures required to mitigate impacts to an acceptable level and incorporates requirements for post closure monitoring (where required).

The likely process steps and timeframes are provided below.



PUBLIC PARTICIPATION PROCESS

The purpose of the public participation process is to notify I&APs and commenting authorities of the proposed project and to provide them with opportunity to raise issues or concerns regarding the proposed project. The public participation process will be undertaken in accordance with the requirements of Chapter 6 of Regulations 982 of 4 December 2014 (EIA Regulations), as amended. Parties involved in the environmental authorisation process are outlined below.

PARTIES INVOLVED IN THE ENVIRONMENTAL AUTHORISATION PROCESSES

I&APs

- * Surrounding landowners, land users and communities
- * Surrounding mines and industries
- * Non-governmental organisations and associations
- * Parastatals

COMPETENT AUTHORITY

- * Department of Mineral Resources and Energy

COMMENTING AUTHORITIES

- * Northern Cape Department of Environment and Nature Conservation (DENC)
- * Department of Environment, Forestry and Fisheries
- * Northern Cape Department of Rural Development and Land Reform (DRDLR) – inclusive of the Land Claims Commissioner
- * Department of Human Settlement, Water and Sanitation

LOCAL AUTHORITIES

- * John Taolo Gaetsewe District Municipality
- * Joe Morolong Local Municipality (including the ward councillor)

Please let us know if there are any additional parties that should be involved.

**TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD
BACKGROUND INFORMATION DOCUMENT
ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

JUNE 2019

REGISTRATION AND RESPONSE FORM FOR INTERESTED AND AFFECTED PARTIES

DATE		TIME	
PARTICULARS OF THE INTERESTED AND AFFECTED PARTY			
NAME			
POSTAL ADDRESS			
STREET ADDRESS		POSTAL CODE	
		POSTAL CODE	
WORK/ DAY TELEPHONE NUMBER		WORK/ DAY FAX NUMBER	
CELL PHONE NUMBER		E-MAIL ADDRESS	

PLEASE IDENTIFY YOUR INTEREST IN THE PROPOSED PROJECT
PLEASE WRITE YOUR COMMENTS AND QUESTIONS HERE

Please return completed forms to:
 Natasha Smyth
 SLR Consulting (Africa) (Pty) Ltd
 Email: nsmyth@slrconsulting.com
 Tel: 011 467 0945
 Fax: 011 467 0978

Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:19 AM
Subject: Tshipi - Proposed alternative closure and rehabilitation optimisation project
Attachments: Tshipi EMP3 BID-final.pdf; Tshipi EMP3 BID-final -Afr.pdf

Bcc: tsteyn@lantic.net; mase.rantsieng@south32.net; james@tshipi.co.za; nthabeleng@tshipi.co.za; Hendrik.Louw@south32.net; Abram.Bodiba@south32.net; derick.korff@south32.net; Alex.mooya@south32.net; ndarap@eskom.co.za; Gerrie.vanschalkwyk@eskom.co.za; Benito.williams@eskom.co.za; khanyen@eskom.co.za; ludekefj@eskom.co.za; vgenseal@eskom.co.za; dbruiner@eskom.co.za; Sam.fiff@transnet.net; cabangile.zulu@transnet.net; andriesmvd@gmail.com; anfour@absamail.co.za; krugersoret@yahoo.com; mmvanwyk10@gmail.com; camel@vodamail.co.za; Cupido.Love@UMK.co.za; Tshivhangwaho.Mudau@umk.co.za; daniel@solafuture.co.za; siphawe@kalagadi.co.za; Tshepo@kalagadi.co.za; henneyrc@telkom.co.za; info@sebiloresources.co.za; didi@sebiloresources.co.za; voorsitter@agrikur.co.za; info@tshiping.co.za; wessanc@yahoo.com; juriekr@gmail.com; louis@soetvlakte.co.za; hendrik.arangies@kmr.co.za; conri.moolman@asia-minerals.com; bonolol@brmo.co.za; Rethabile.Mboya@arm.co.za; AshleyG.Mcleod@arm.co.za; info@afribits.co.za; Wezi.banda@ergafrica.com; Gert.theart@vodamail.co.za; ebenanthonissen@hotmail.com; ebena@absamail.co.za; Carel.reyneke@absamail.co.za; tshifhiwar@brmo.co.za; josephmatshidiso@yahoo.com

**TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

Dear Interested and Affected Party (I&AP)

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting regulatory authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) (English and Afrikaans) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. In addition, a public meeting has been arranged as part of the public participation process. Details regarding the public meeting are provided below:

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

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d 2029

e nsmyth@slrconsulting.com

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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:17 AM
Subject: Tshipi - Proposed alternative closure and rehabilitation optimisation project
Attachments: Tshipi EMP3 BID-final.pdf

Bcc: Tmthombeni@ncpg.gov.za; gletimela@ncpg.gov.za; mokonopin@gmail.com; nmokonopi@ncpg.gov.za; Ntsundeni.Ravhugoni@dmr.gov.za; juliakatong2@gmail.com; Jmmasela66@gmail.com; mm@joemorolong.gov.za; mmorwagae@joemorolong.gov.za; leutlwetsed@joemorolong.gov.za; sseleka@webmail.co.za; sseleka@joemorolong.gov.za; mmsec@taologaetsewe.gov.za; matlhareTH@taologaetsewe.gov.za; fortunec@agri.ncpg.gov.za; cfortune@agri.ncape.gov.za; ryan.oliver@drrdlr.gov.za

**TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

Dear Regulatory/Commenting Authority

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting regulatory authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. In addition, a public meeting has been arranged as part of the public participation process. Details regarding the public meeting are provided below:

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:15 AM
To: JacolineMa@daff.gov.za
Subject: Tshipi - Proposed alternative closure and rehabilitation project
Attachments: Tshipi EMP3 BID-final.pdf

**TSHIPI é NTLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

DEPARTMENT OF ENVIRONMENT, FORESTRY AND FISHERIES

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. **In addition, a public meeting has been arranged as part of the public participation process. Details regarding the public meeting are provided below, however we will be in contact with you during the course of next week to discuss the possibility of setting up a focussed meeting with your department in Upington.**

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



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Environmental Assessment Practitioner

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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:16 AM
To: nhiggitt@sahra.org.za
Subject: Tshipi - Proposed alternative closure and rehabilitation project
Attachments: Tshipi EMP3 BID-final.pdf

**TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

SOUTH AFRICAN HERITAGE RESOURCE AGENCY

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. In addition, a public meeting has been arranged as part of the public participation process.

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu
Time: 10h00
Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

PLEASE NOTE THAT WE HAVE OPENED UP A CASE FILE AND WILL UPLOAD THE BID ONTO SAHRIS. THIS EMAIL HAS BEEN SENT FOR RECORD KEEPING PURPOSES.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

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Natasha Smyth

From: Natasha Smyth
Sent: 15 June 2019 07:15 AM
To: msimangop@dws.gov.za
Subject: Tshipi - Proposed alternative closure and rehabilitation project
Attachments: Tshipi EMP3 BID-final.pdf

**TSHIPI é NTLE MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT THE TSHIPI BORWA
MINE**

DEPARTMENT OF HUMAN SETTLEMENT, WATER AND SANITATION

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province.

The approved Environmental Management Programme report (EMPr) commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate completely backfilling the open pit is sub-optimal when considering environmental, socio-economic, technical, commercial and legal factors. Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.

Prior to the commencement of the proposed project, an environmental authorisation from the Department of Mineral Resources (DMR) in terms of the National Environmental Management Act (NEMA) No. 107 of 1998 is required. SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the environmental assessment process.

Your Department has been identified as a commenting authority who may want to be informed about the proposed project and have input into the Basic Assessment process. The attached Background Information Document (BID) has been prepared to provide your Department with background information on the proposed project and provide you with an opportunity to provide comments. **In addition, a public meeting has been arranged as part of the public participation process. Details regarding the public meeting are provided below; however we will be in contact with you during the course of next week to discuss the possibility of setting up a focussed meeting with your department in Kimberley.**

Venue: Sishen Golf and Country Club(Gemsbok Conference room- Main Club): Hans Coetzee street, Kathu

Time: 10h00

Date: 26 June 2019

For further information relating to the proposed project, please refer to the attached BID.

For any queries please do not hesitate to contact me.

Kind Regards

Natasha



Natasha Smyth

Environmental Assessment Practitioner

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**TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi currently holds the following material authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the DMR, as amended;
- An environmental authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country;

Tshipi is therefore proposing to make application to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface;
- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

Notice is hereby given of the applications to be made for authorisation of the proposed project in terms of the environmental legislation listed below:

Applicable legislation	Details	Key Process Elements	Competent Authority
National Environmental Management Act (No. 107 of 1998) (NEMA) EIA Regulations, 2014 as amended.	GNR 983. Listing Notice 1: • Activity 24: The development of a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters (but excluding a road which is one kilometre or shorter) (establishment of a 30m wide road that is longer than one kilometre)	• Environmental Authorisation Application • Basic Assessment Report (BAR), including Environmental Management Programme and supporting specialist studies • Stakeholder engagement and public participation	Northern Cape Department of Mineral Resources

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the BAR process. A public meeting has been arranged as part of the public participation process as follows:

Date	Venue	Time
26 June 2019	Sishen Golf and Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee street, Kathu)	10h00

All stakeholders are invited to register as Interested and Affected Parties (I&AP) and submit any initial comments to SLR by 12 July 2019. All registered I&APs will continue to be given the opportunity to participate and comment for the full duration of the BAR process. Registered I&APs will be notified when the BAR will be available for public review. To register or to check that you are registered and/or to submit any comment on the proposed project and process contact SLR at the contact details below:

Natasha Smyth
Email: nsmyth@slrconsulting.com
Tel: 011 467 0945
Fax: 011 467 0978
Post: PO Box 1596, Cramerview, 2060
(Note: If using post, please also contact us telephonically to notify us of your submission).

**TSHIPI É NTLÉ MANGANESE MINING (EDMS.) BPK.
ALTERNATIEWE SLUITINGS- EN REHABILITASIEPROJEK BY DIE TSHIPI BORWA-MYN**

Tshipi é Ntle Manganese Mining (Edms.) Bpk. (Tshipi) bedryf tans die Tshipi Borwa-oopgroef mangaanmyn wat geleë is op die plaas Mamatwan 331 (mynreg- en oppervlakgebruikgebied) en Moab 700 (oppervlakgebruikgebied) sowat 18 km suid van Hotazel in die Joe Morolong Plaaslike Munisipaliteit en die John Taolo Gaetsewe Distriksmunisipaliteit in die Noord-Kaapprovinsie. Tshipi beskik tans oor die volgende magtigings:

- 'n Mynreg (NC/30/5/1/2/2/0206MR) wat deur die Departement van Minerale Hulpbronne (DMH) uitgereik is;
- 'n Omgewingsbestuursprogramverslag (OBPr) wat deur die DMH goedgekeur is, soos gewysig;
- 'n Omgewingsmagtiging (NC/30/5/1/2/2/206/000083 EM) wat deur die DMH uitgereik is; en
- 'n Watergebruiklisensie (IWUL) (10/D41K/AGJ/1735) wat deur die Departement van Water en Sanitasie uitgereik is.

Die goedgekeurde OBPr verbind Tshipi daartoe om die oppervlak na die voorontginningstoestand van wildernis en weiding te herstel en vereis dat die oopgroef teruggevol word. Weens die volgende redes dui onlangse bedryfsoptimaliseringsondersoeke daarop dat die volledige terugvulling van die oopgroef sub-optimaal is wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word:

- Die geleentheid vir verbeterde biodiversiteitshabitats met 'n ander terugvullingsbenadering, veral ten opsigte van topografiese verskeidenheid en toegang tot oppervlakwater.
- Die geleentheid vir verbeterde grondgebruik verbeter met toegang tot oppervlakwater.
- 'n Alternatiewe sluitingsopsie sal vroeëre rehabilitasie van afvalkliphope moontlik maak.
- Volledige terugvulling van die oopgroef sal 'n ondergrondse hulpbron, wat noord van die huidige goedgekeurde oopgroef geleë is, waarskynlik steriliseer. Die gepaardgaande verlies aan werk, verkryging, belastinge en buitelandse valutaverdienste is wesenlik en sal 'n materiële netto verlies vir die streek en die land wees.

Derhalwe doen Tshipi aan die hand om aansoek te doen om die huidige sluitingsverbinde te verander om 'n meer volhoubare en geoptimaliseerde uitkoms te verwesenlik. Ten opsigte hiervan, konsentreer die beoogde projek op:

- Slegs gelyklopende terugvulling, d.i. in-groefstorting slegs tydens mynboubedrywighede;
- Glooiing en rehabilitasie van afvalkliphope wat op die oppervlak agterbly;
- Toegang tot gereedelik beskikbare toekomstige watervoorsiening; en
- Die optimalisering van die oppervlakgrondvorms en gedeeltelik teruggevolde groef vanuit 'n perspektief van biodiversiteit, rehabilitasie-, grondgebruik en besoedelingsvoorkoming.

Kennis geskied hiermee van die aansoeke wat gedoen gaan word vir die magtiging van die beoogde projek ingevolge die omgewingswetgewing wat hieronder gelys is:

Toepaslike wetgewing	Besonderhede	Belangrike Elemente van Proses	Bevoegde Owerheid
Nasionale Wet op Omgewingsbestuur (Wet 107 van 1998) (NEMA), OIE-regulasies, 2014, soos gewysig	Staatskennisgewing R983. Lyskennisgewing 1: • Aktiwiteit 24: Die ontwikkeling van 'n pad met 'n reserwe breër as 13,5 meter, of waar daar geen reserwe is nie, waar die pad breër is as 8 meter (maar uitgesluit 'n pad wat een kilometer of korter is) (bou van 'n 30 m breë pad wat langer as een kilometer is)	• Aansoek om Omgewingsmagtiging • Basiese Evalueeringsverslag (BEV), wat die OBPr en stawende spesialisstudies insluit • Skakeling met belanghebbers	Noord-Kaapse Departement van Minerale Hulpbronne

SLR Consulting (Africa) (Edms.) Bpk. (SLR), 'n onafhanklike firma van omgewingskonsultante, is deur Tshipi aangestel om die BEV-proses te bestuur. Die volgende openbare vergadering is as deel van die openbare deelnameproses gereël:

Datum	Plek	Tyd
26 Junie 2019	Sishen Golf- en Buiteklub (Gemsbok Conference room- Main Club) (Hans Coetzeestraat, Kathu)	10h00

Alle belanghebbers word genooi om as Belangstellende en Geaffekteerde Partye (B&GP's) te registreer en enige aanvanklike kommentaar by SLR in te dien teen 12 Julie 2019. Alle geregistreerde B&GP's sal steeds vir die volle tydsduur van die BEV-proses die geleentheid hê om deel te neem en kommentaar te lewer. Geregistreerde B&GP's sal in kennis gestel word van wanneer die BEV beskikbaar sal wees vir openbare insae. Tree in verbinding met SLR by die kontakbesonderhede hieronder om te registreer of om te kyk of u geregistreer is en/of om enige kommentaar oor die beoogde projek en proses in te dien:

Natasha Smyth
E-pos: nsmyth@slrconsulting.com
Tel: 011 467 0945
Faks: 011 467 0978
Posadres: Posbus 1596, Cramerview, 2060
(Let wel: As u die posdiens gebruik, moet u ons asseblief ook telefonies kontak om ons in kennis te stel van u indiening.)



Photo 1: Blackrock Library



Photo 2: Gamagara Local Municipality

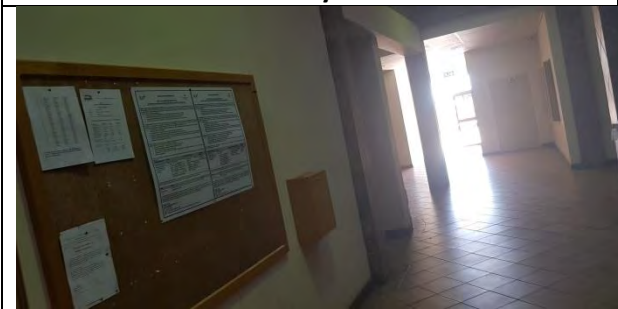


Photo 3: Joe Morolong Local Municipality

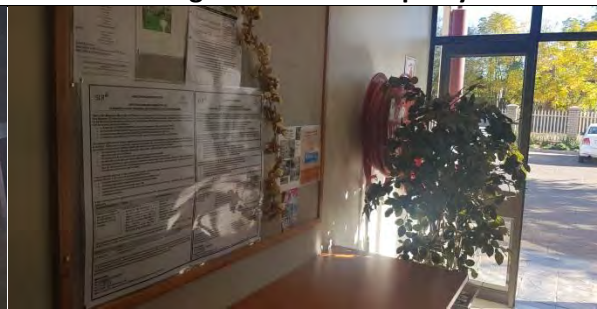


Photo 4: Hotazel Public Library



Photo 5: Kameeldoring Shopping Complex

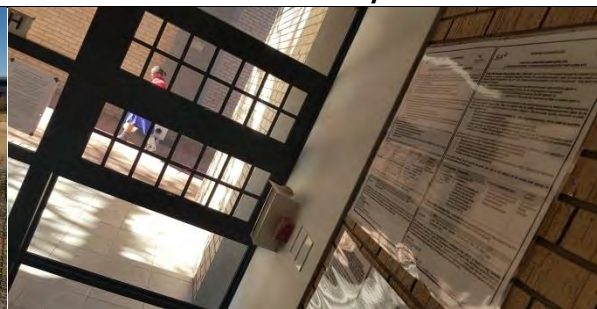


Photo 6: Kathu Public Library



Photo 7: Kuruman Public Library

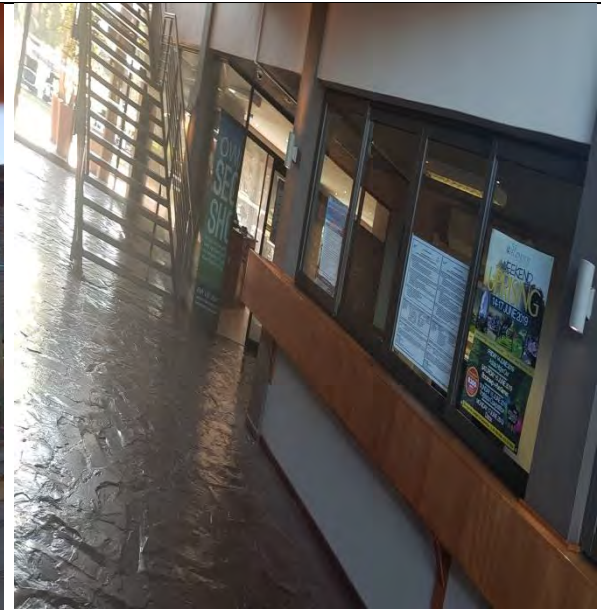


Photo 8: Sishen Golf Club

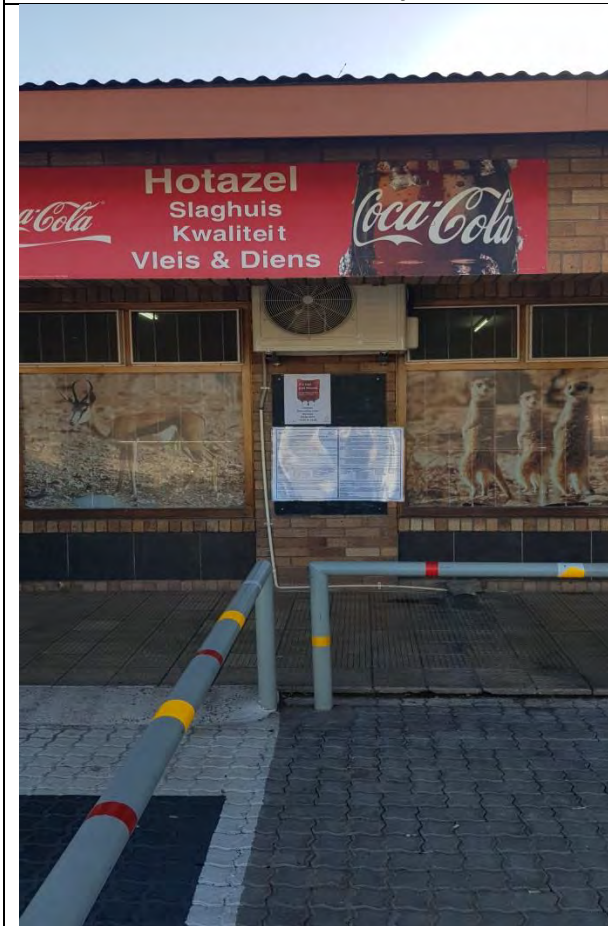


Photo 9: Hotazel Butchery




Photo 10: Mine Entrance



Photo 11: John Taolo Gaetsewe District Municipality

Geklassifiseerd

G O V E R N M E N T - M U N I C I P A L I T Y



MUNICIPAL NOTICE

Resolution Levying Property Rates for the Financial Year 1 July 2019 to 30 June 2020

Notice is hereby given in terms of section 14(1) and (2) of the Local Government: Municipal Property Rates Act, 2004 that, at its meeting of 30 May 2019, Council resolved by way of Council Resolution Number 01 to levy the rates on property reflected in the schedule below with effect from 1 July 2019:

Category of property	Amount
Households	0.007060
Business	0.011947
Industrial	0.012152
Guesthouses	0.009450
Agricultural	0.000354
State-owned Property	0.021852

Full details of Council resolution and rebates, reductions and exclusions specific to each category of owners of properties or owners of a specific category of properties, as determined through criteria in the Municipality's rates policy, are available for inspection at the Municipality's offices or its website (www.ga-segonyana.gov.za) and all public libraries.

Mr MM Tsatsimpe - Municipal Manager
Private Bag X1522, Kuruman 8460; tel. (053) 712-9300

Human Communications 147115



NOTICE

Integrated Development Plan (IDP) for 2019/20 with 3-year Budget/Medium-term Revenue & Expenditure Framework (MTREF) for 2019/20, 2020/21 and 2021/22

Notice is hereby given in accordance with regulation 3(4)(b) of the Regulations regarding Local Government: Section 21 of the Local Government: Municipal Systems Act (No 32 of 2000), section 22 of the Local Government: Municipal Finance Act, 2003 (No 56 of 2003) and that the IDP and 3-year budget for 2019/20, 2020/21 and 2021/22 were approved by Council on 30 May 2019.

Ga-segonyana Local Municipality 2019/20 Capital Budget 2019-2020 Municipal Infrastructure Grant Implementation Plan

Item	2019/20	2020/21	2021/22
	Amount	Amount	Amount
Upgrade of gravel internal road to paved road in Seven Miles	R6 831 530.96		
Upgrade of gravel internal road to paved	R231 237.45		
Upgrade of gravel internal road to paved road in Bankhara Bodulong	R785 000.00		
Construction of Ward 8 Batharos Community Hall		R12 000 000.00	
Rural sanitation plan	R8 918 072.38		
Construction of Sedibeng Community Hall	R1 897 855.15		
Construction of Kuruman Fire Station and emergency disaster management facilities		R16 094 493.10	R16 000 000.00
MIG 1428: Upgrade of 2 061m gravel internal road to paved road in Gamopedi	R10 674 112.66		
Upgrade of sports facilities in Wrenchville		R10 042 332.47	R4 213 003.30
Development of sports facilities in Muthibstad	R7 545 000.00		
PMU	R3 000 000.00	R3 500 000.00	R3 500 000.00
Upgrade of gravel internal road to paved road in Muthibstad Unit 2	R13 419 191.40	R4 780 452.07	
Road in Magojaneng (RDP to Block D)			R14 262 360.00
Road in Batharos (Nanana Section)			R13 519 100.34
Kaqung (Westelderby and Hardvard paved road)		R9 800 722.36	R8 917 536.36
Total Value of Projects	R53 302 000.00	R56 218 000.00	R60 412 000.00
Improved MIG Allocation	R53 302 000.00	R56 218 000.00	R60 412 000.00

2019-20 Water Service Infrastructure Grant Implementation Plan

Project Name	Budget Year: 2019/20	Budget Year: 2020/21	Budget Year: 2021/22
	Amount	Amount	Amount
Magojaneng Block D water supply VS Dikgweng	R19 874 817.18	R898 418.64	
Kaqung bulk water supply Phase 3	R17 763 602.58	R833 939.95	
Batharos water source development and drought relief - W	R1 281 537.10		
Extension of Pietbos water supply	R12 213 718.75	R479 406.25	
Refurbishment of Kuruman STW and sewage pump station	R976 003.93		
Refurbishment of Muthibstad Oxidation Ponds	R550 200.85		
Mopoting source development	R11 839 572.31	R549 249.82	
WSOS		R16 127 864.30	R630 050.01
Maruping/Batharos bulk water supply Phase 3: Wards 8, 9, 10, 14	R13 422 067.53	R13 303 751.64	R1 189 455.46
Feasibility study for provision of water in Promise Land, Thuli Madonsela, Obama Phase 1		R6 710 776.45	
Bulk Water Supply in Promise Land, Thuli Madonsela, Obama			R20 452 602.00
Upgrade of internal water supply to Kuruman and Wrenchville	R17 078 479.77	R771 592.95	
Magojaneng Tselopele Water			R10 540 326.00
New Mokalamosebana water			R9 044 566.53
Total Value of Projects	R95 000 000.00	R39 675 000.00	R41 857 000.00
DORA Allocation	R95 000 000.00	R39 675 000.00	R41 857 000.00

Summary: Income and Expenditure Operational Budget per Income Source

Description	2019/20 Medium-term Revenue & Expenditure Framework			
	R thousand	Budget Year 2019/20	Budget Year +1 2020/21	Budget Year +2 2021/22
Revenue by Source	000	000	000	
Property rates	47 525	50 091	52 796	
Service charges: electricity revenue	103 665	109 263	115 163	
Service charges: water revenue	25 877	27 274	28 747	
Service charges: sanitation revenue	11 938	12 583	13 262	
Service charges: refuse revenue	10 000	10 540	11 109	
Rental of facilities and equipment	1 764	1 859	1 960	
Interest earned: external investments	3 200	3 373	3 555	
Interest earned: outstanding debtors	7 000	7 378	7 776	
Fines, penalties and forfeits	4 202	4 429	4 668	
Licences and permits	1 927	2 031	2 141	
Transfers and subsidies	177 219	183 236	200 530	
Other revenue	29 078	30 648	32 303	
Total Revenue (excluding capital transfers and contributions)	423 395	442 706	474 011	
Expenditure by Type				
Employee-related costs	144 826	15 811	160 009	
Remuneration of councillors	9 042	9 530	10 045	
Debt impairment	1 025	1 080	1 139	
Depreciation and asset impairment	40 953	43 164	45 495	
Finance charges	5 987	6 310	6 651	
Bulk purchases	111 300	117 311	123 645	
Other materials	15 652	16 291	17 171	
Contracted services	48 519	38 104	39 650	
Transfers and subsidies	60	63	67	
Other expenditure	40 671	42 746	45 054	
Total Expenditure	418 034	426 411	448 926	
Surplus/(Deficit)	5 361	16 295	25 085	
Transfers and subsidies: capital (monetary allocations) (National/Provincial and District)	175 944	94 953	101 469	
Transfers and subsidies: capital (in-kind - all)				
Surplus/(Deficit) for the year	181 305	111 248	126 554	



Be a successful member of a highly competitive sales team, determining your own income, by using your expert knowledge to accurately identify the customer needs while exceeding your targets and ensuring exceptional customer service.

Barloworld Toyota Postmasburg PARTS COUNTER SALES

The core purpose of this position is to ensure a profitable parts department by selling parts and ensuring the availability of correct parts. To be successful in the role, you would have a passion for customer satisfaction and retention, be cognitive of the GP target and have a drive for maximizing profit whilst achieving above average customer satisfaction ratings.

Prime Responsibilities:
Reporting to the Dealer Principal, you will: • Ensure knowledge of the manufacturer and Barloworld Motor's parts marketing plans, the range of products and services offered by the parts department and Parts pricing policies and plans • Assist in the implementation of the marketing plans, use the database (MIS) correctly and implement a relationship-selling plan • Make telephone, written or face-to-face contact with the targeted customers at the appropriate time • Deal with customers in a courteous, tactful and professional manner • Pursue each parts sales opportunity promptly and efficiently, using the correct approach • Establish the customer's needs for parts over the telephone • Ensure the parts sales area is clean and tidy, in accordance with Barloworld Motor Retail and franchise standards • Ensure all relevant information is collected to ensure the correct part is identified and quoted for • Accurately enter the customer's order in the computer system • Order non-stocked, or out of stock parts from the correct supplier.

Knowledge:
Technical orientation and product knowledge • Computer literacy • Sales principles • Written and spoken English and Afrikaans.

Skills:
Persuasive communication • Attention to detail • Professional telephone etiquette • Fluent and confident communication • Willingness to learn and keep up to date with developments

Personal Attributes:
Professional appearance, impact with customers • Willingness to work flexible hours/over time • Team player • Willingness to comply with given standards, guidelines, procedures and instructions) • Helpful and supportive behaviour in interpersonal interactions.

Minimum Requirements: Matric Certificate • Unendorsed driver's license • Previous experience in a similar role.

Certified copies of ID, driver's license and matric certificate must accompany your application
Selection will be done in terms of Barloworld's Employment Equity policy

CLOSING DATE FOR ALL APPLICATIONS: 21/06/2019
To Apply: Send your CV to Jacques De Jager - Jacques.deJager@bwmr.co.za

Government Grants

The following grants are reflected in the budget as gazette in the Division of Revenue Act.

Description	2019/20 Medium-term Revenue & Expenditure Framework			
	R thousand	Budget Year 2019/20	Budget Year +1 2020/21	Budget Year +2 2021/22
Receipts:				
Operating Transfers and Grants				
National Government:	175 598	181 439	198 733	
Local Government Equitable Share	159 726	174 827	191 857	
Finance Management	2 680	3 112	3 376	
EPWP Incentive	1 274	-	-	
Municipal Infrastructure Grant	11 918	3 500	3 500	
Provincial Government:	1 621	1 797	1 797	
Sport and Recreation	1 621	1 797	1 797	
Total Operating Transfers and Grants	177 219	183 236	200 530	
Capital Transfers and Grants				
National Government:	175 944	94 953	101 469	
Municipal Infrastructure Grant (MIG)	41 384	52 718	56 912	
Water Services Infrastructure Grant	95 000	39 675	41 857	
Integrated National Electrification Programme	39 560	2 560	2 700	
Total Capital Transfers and Grants	175 944	94 953	101 469	
Total Receipts of Transfers and Grants	353 163	278 189	301 999	

Projects Funded by Mining Houses & Sector Departments

Department of Agriculture

Priorities For	Project/Programme Name	Budgeted Amount	Ward	Village
Commercialisation of farms	<ul style="list-style-type: none"> Custom feeding Construction of steel kraals Construction of storage shed Purchasing of feeds 	R3 000 000.00	11	Kagung (Yale Farm)
Water infrastructure	<ul style="list-style-type: none"> Water infrastructure Equipping two boreholes with windmill and construction of stock water system at Mathobolo and Gamogotsi for livestock water 	R400 000.00		Batharos
Water infrastructure	Equipping a borehole with windmill for livestock water			Thamoyanche
Water infrastructure	Repairing two broken windmills	R80 000.00		Ga-segonyana municipality
Food security	Vegetable starter packs will be distributed to Balelapa beneficiaries	R200 000.00		Ga-segonyana Municipality

Kumba Mine: Anglo American SLP Project

Project Name	2019	2020	2021
Road Maintenance			
Bulk Water Supply Upgrade	R6 000 000.00	R8 000 000.00	R8 000 000.00
Health Practitioner Development Project	R538 867.00	R590 554.00	R590 554.00
Community Bursaries for NCR TVET College (B.Ed and Professional Cookery)	R1 765 000.00	R1 765 000.00	R1 765 000.00
Total	R8 303 867.00	R10 355 554.00	R10 355 554.00

Resolution Levying Property Rates for the Financial Year 1 July 2019 to 30 June 2020

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Agricultural	0.000354
State-owned Property	0.021852

Full details of the Council resolution and rebates, reductions and exclusions specific to each category of owners of properties or owners of a specific category of properties are available for inspection at the Municipality's offices, website (www.ga-segonyana.gov.za) and all public libraries.

Mr M Tsatsimpe - Municipal Manager - www.ga-segonyana.gov.za




PUBLIC PARTICIPATION PROCESS

TSHIPI E NTLE MANGANESE MINING (PTY) LTD

ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

Tshipi e Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Matamatwa 331 (mining right and surface use areas) and Mook 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi currently holds the following authorisations:

- A mining right (NC/30/5/12/2020/GR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPR) approved by the DMR;
- An environmental authorisation (NC/30/5/12/2016/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41KAGU/1735) issued by the Department of Water and Sanitation.

The approved EMPR commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, and completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to making application to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface;
- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

Notice is hereby given of the applications to be made for authorisation of the proposed project in terms of the environmental legislation listed below:

Applicable legislation	Details	Key Process Elements	Competent Authority
National Environmental Management Act (No. 107 of 1998) (NEMA) EIA Regulations, 2014 as amended.	GNR 983, Listing Notice 1: <ul style="list-style-type: none"> Activity 24: The development of a road with a reserve wider than 13.5 meters, or where no reserve exists where the road is wider than 8 meters (but excluding a road which is one kilometre or shorter) (establishment of a 30m wide road that is longer than one kilometre) 	<ul style="list-style-type: none"> Environmental Authorisation Application Basic Assessment Report (BAR), including Environmental Management Programme and supporting specialist studies Stakeholder engagement 	Department of Mineral Resources

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the BAR process. A public meeting has been arranged as part of the public participation process as follows:

Date	Venue	Time
26 June 2019	Kalahari Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee road, Kathu)	10h00

All stakeholders are invited to register as Interested and Affected Parties (I&AP) and submit any initial comments to SLR by 12 July 2019. All registered I&APs will continue to be given the opportunity to participate and comment for the full duration of the BAR process. Registered I&APs will be notified when the BAR will be available for public review. To register or to check that you are registered and/or to submit any comment on the proposed project and process contact SLR at the contact details below.

Natasha Smyth
Email: nsmth@slrconsulting.com
Tel: 011 467 0945
Fax: 011 467 0978
Post: PO Box 1596, Cramerview, 2060
(Note: If using post, please also contact us telephonically to notify us of your submission).

KURUMAN MPACT and Mrs SA promoting recycling

On Monday 03 June 2019, M-pact Recycling, the leading paper and PET recycler in South Africa, partnered with the Tammy Taylor Mrs South Africa pageant - a women empowerment programme, for the fifth consecutive year.

Through the partnership with M-pact Recycling, the top 100 Mrs South Africa semi finalists are required to work alongside M-pact Recycling at schools, with the aim of promoting recycling awareness, supporting fundraising initiatives and increasing recycling volumes.

Each semi finalist has a target to generate 2 tonnes of recycling at the schools that they visit.

The M-pact Recycling schools programme allows schools to raise funds, as they are paid for their recyclables, whilst teaching environmental awareness, responsibility and sustainability.

The partnership is valuable as it spotlights the importance of recycling. By recycling, the environment benefits in a number of ways: It diverts recyclable paper; paper-based packaging and plastic away from landfills; reduces greenhouse gas emissions and prevents the incineration of recyclable paper.

M-pact Recycling embraces the social entrepreneurship empowerment model by partnering with local entrepreneurs to help collect recycled paper for them.

M-pact Recycling has a national reach - aside from 16 of its own operations in major centres around SA.



Semi-finalist in the Tammy Taylor Mrs South Africa pageant, Susan Botsime, engaging with learners.

They also have over 45 buy-back centres where traders deliver waste paper and plastic for payment.

They also buy from a number of independent dealers throughout the country.

Did you know that long-life milk and juice cartons are now recyclable? Recycling of used, empty cartons is easy and only requires to remove or lift the cap, turn out the corners, flatten and replace the cap. The flattened carton is now ready to be recycled.

M-pact Recycling collects over 630 000 tonnes per annum of recovered paper and PET (Polyethylene Terephthalate). The recovered paper is supplied to the M-pact Group's paper mills and the PET bottles are supplied to its recycled PET plant - M-pact Polymers. All of this fibre is

used in the manufacture of recycled-based carton board, containerboard and recycled PET bottles for sale to South Africa's packaging industry.

M-pact Recycling has a strong recycling heritage spanning over 50 years. They are in the business of sustainability through their active job creation, economic value and environmental stewardship.

The recycling industry contributes to the employment of over 100 000 people in South Africa, many of whom are entrepreneurs and small business owners that rely on sustained volumes of recycled material to earn a living. Recycle Paper ZA M-pact Recycling is part of a successful business model with their ultimate objective being to supply the right quality and the right quantity of paper and PET bottles through to their mills around the country.



GAMAGARA LOCAL MUNICIPALITY

INVITATION TO TENDER
TENDER NO.: 2019/08

APPOINTMENT OF THE CONTRACTOR FOR A THREE (3) YEAR MAINTENANCE CONTRACT TO PROVIDE CIVIL ENGINEERING SERVICES FOR WATER AND SANITATION INFRASTRUCTURE

It is estimated that prospective tenderers should have a CIDB contractor grading of Civil 2CEPE/3CE or Higher. Only tenderers who conform to the criteria stated in the Tender Data and Tender conditions are eligible to submit tenders.

Tender documents will be available from e-tender website, municipal website - www.gamagara.co.za and CIDB website. Tender documents queries can be directed to Mrs Josephine Nampa at 053 723 6000. No tender documents will be made available during the compulsory clarification meeting.

A compulsory clarification meeting with representatives from the Employer will take place at the municipal offices of Gamagara Municipality in Kathu on Thursday, 04 July 2019 starting at 10:00am. Only Tenderers who attend the clarification meetings shall be eligible to submit tenders.

This tender will close on **Friday, 26 July 2019 at 14:00.**

Completed tender documents, sealed in an envelope and clearly marked with "APPOINTMENT OF THE CONTRACTOR(S) FOR A THREE (3) YEAR MAINTENANCE TO PROVIDE CIVIL ENGINEERING SERVICES FOR WATER AND SANITATION INFRASTRUCTURE" must be placed in the tender box in the foyer of Gamagara Local Municipality, corner Hendrik van Eck & Frikkie Meyer Road, Kathu, and no Tenders will be accepted after the closing time.

Gamagara Local Municipality does not bind itself to accept the lowest or any tender and reserves the right to accept the whole or part of a tender. All tenders will remain valid for a period of 90 days after the time and date of opening. This tender will be evaluated according to the 80/20 point system and the PPPFA.

Technical enquiries relating to this tender should be addressed to Mr Bantu Mqingwana at Tel: +27 53 723 6000 E-mail: mqingwanab@gamagara.co.za

Mr Protea Kgomodikae Leserwane
Municipal Manager



PUBLIC PARTICIPATION PROCESS

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE



Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi currently holds the following authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the DMR;
- An environmental authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the DMR; and
- A Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Department of Water and Sanitation.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, and, completely backfilling the open pit is sub-optimal for the following reasons:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water;
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps; and
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country;

Tshipi is therefore proposing to making application to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface; Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

Notice is hereby given of the applications to be made for authorisation of the proposed project in terms of the environmental legislation listed below:

Applicable legislation	Details	Key Process Elements	Competent Authority
National Environmental Management Act (No. 107 of 1998) (NEMA) EIA Regulations, 2014 as amended.	GNR 983. Listing Notice 1: Activity 24: The development of a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters (but excluding a road which is one kilometre or shorter) (establishment of a 30m wide road that is longer than one kilometre)	<ul style="list-style-type: none"> • Environmental Authorisation Application • Basic Assessment Report (BAR), including Environmental Management Programme and supporting specialist studies • Stakeholder engagement 	Department of Mineral Resources

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental consultants, has been appointed by Tshipi to manage the BAR process. A public meeting has been arranged as part of the public participation process as follows:

Date	Venue	Time
26 June 2019	Kalahari Country Club (Gemsbok Conference room- Main Club) (Hans Coetzee road, Kathu)	10:00

All stakeholders are invited to register as Interested and Affected Parties (I&AP) and submit any initial comments to SLR by 12 July 2019. All registered I&APs will continue to be given the opportunity to participate and comment for the full duration of the BAR process. Registered I&APs will be notified when the BAR will be available for public review. To register or to check that you are registered and/or to submit any comment on the proposed project and process contact SLR at the contact details below:

Natasha Smyth
Email: nsmyth@slrconsulting.com
Tel: 011 467 0945 | Fax: 011 467 0978
Post: PO Box 1596, Cramerview, 2060
(Note: If using post, please also contact us telephonically to notify us of your submission).

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
DEPARTMENT OF WATER AND SANITATION FOCUSED MEETING**

Date	21 June 2019
Venue:	Department of Water and Sanitation offices in Kimberley
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	710.20008.00069
Purpose:	<p>The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • Provide an overview of current operations • Outline the motivation and project alternatives considered • Provide an overview of the environmental process • Provide an overview of specialist studies to be undertaken • Provide an overview of the existing status of the environment • Provide an overview of potential impacts • Provide an overview of the public participation process
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees from Tshipi and the Department Water and Sanitation present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation providing an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal.

An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised and responses provided during the meeting

Issues raised	By whom	Response provided
An application has recently been submitted to our department for amendments to the existing Integrated Water Use Licence Application for Tshipi. Will the application associated with this proposed project form part of the amendment that is currently with the department for processing, or will a separate application be made?	Fhatuwani Magonono	The proposed project is not going to trigger a need for a water use license. Your department has been contacted as a key commenting authority and we would like your input on the proposed project. We also understand that due to resource constraints it is not always practical to for departmental officials to attend meetings in Kathu (Natasha Smyth- SLR).
Is the backfilling authorised by the Department of Mineral Resources?		Tshipi currently has permission to completely backfill the open pit. To have an alternative backfill strategy, Tshipi will need approval from the DMR (Natasha Smyth – SLR).
The Department of Water and Sanitation will need to authorise the use of waste rock to backfill	Fhatuwani Magonono	A section 21(g) water use for the use of waste rock to completely backfill the open pit, forms part of the integrated

Issues raised	By whom	Response provided
the open pit in terms of Section 21(g) of the National Water Act (No. 36 of 1998).		Water Use Licence Application amendment that has been submitted to your department for processing. It follows that there is no need to re-apply for this water use as part of the proposed project (Natasha Smyth – SLR).
Why create a pit lake? Why don't you completely rehabilitate the whole pit?		Completely backfilling the open pit does not allow for the access to water and as such does not promote the use of alternative land uses (Natasha Smyth – SLR).
What will be the use of that water?		Access to the water within the pit lake allows for the creation of an aquatic habitat that would otherwise not be possible. The water is also available for livestock watering (Natasha Smyth – SLR).
The pit lake water will be contaminated because of the WRDs? It will end up infiltrating to the groundwater.		Specialist modelling has been undertaken in order to understand the water quality of the end pit lake. Modelling indicates that the water quality within the pit lake will be suitable for livestock watering up to 100 years. Thereafter passive treatment will be required. In this regard, the specialist is currently investigating the possibility of installing floating wetlands to improve the water quality long term. In addition to this, the pit will act as a sink thereby minimising the extent of the groundwater pollution plume (Natasha Smyth – SLR).
Please ensure that post closure monitoring is undertaken?		This will form part of the post closure monitoring programme. (Natasha Smyth – SLR).
Will the pit spill?		Modelled results indicate that it is unlikely that the pit will spill (Brad Rip-Tshipi).
Did you conduct a waste classification study?	Fhatuwani Magonono	A waste classification has been done for the mine. A waste assessment will not

Issues raised	By whom	Response provided
		be re-done as part of the proposed project, however reference to this study will be included in the Basic Assessment Report (Natasha Smyth – SLR).
The most critical part in terms of this application will be the geohydrological report, which must cover the modelling of the plume and the monitoring boreholes (post closure monitoring) both near and downstream.		This has been noted (Brad Rip- Tshipi).

4. WAY FORWARD

The way forward is outlined as follows:

- A public and commenting authorities meeting will be held on 26 June 2019;
- A focussed meeting will be held with the Department of Environment, Forestry and Fisheries on 27 June 2019
- The Basic Assessment Report in support of the proposed project will be made available for public review for a period of 30 days. It is anticipated that this will commence in early August 2019; and
- The Basic Assessment Report will be updated to include any comments received during the review of the report. This updated report will be made submitted to the Department of Mineral Resources for decision making purposes.

5. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by Natasha Smyth.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Brad Rip	Tshipi	082 894 0216	bradrip@mwebbiz.co.za
Fathuwani Magonono	DWS	053 836 7656	magononof@dws.gov.za
Vhonani Ramagondo		053 836 7648	ramagondov@dws.gov.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com
Gugu Dhlamini			gdhlamini@slrconsulting.com

Project: TSHIPI EMP3 CLOSURE PROJECT

SLR Company: AFRICA

Date: 20/06/19

Venue: DHS KIMBERLEY

Meeting: FOCUSED MEETING



Name and Surname	Community/Organization	Postal address	Contact numbers	E-mail
Vhoni Ramugondo	DWS		053 836 7644	ramugondov@dws.gov.za
Flitwani Mgweni	DWS		053 836 7656	mgweni@DWS.gov.za
Bess Rip	TSHIPI		082 89 40216	bradrip@webb@co.za
James Mank	TSHIPI		APOLOGISE	
Cigqi Dhlamini	SLR		011 467 0945	gdhlamini@slrconsulting.com
Natasha Smyth	SLR		0832268570	nsmyth@slrconsulting.com

Note: SLR will use your contact information to communicate future project information and by providing your details on this attendance register it does not mean that you are giving consent for the project.

APPENDIX 2: PRESENTATION

TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION
OPTIMISATION PROJECT - TSHIPI BORWA MINE

PUBLIC AND COMMENTING AUTHORITIES
 MEETING
 June 2019

global environmental and advisory solutions

Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

1

AGENDA

- Welcome and introductions
- Meeting protocol
- Overview of current operations
- Overview and motivation for the proposed project
- Alternatives considered
- Environmental process overview
- Specialist studies
- Overview of the existing status of the environment
- Potential impacts (environmental and socio-economic)
- Summary of the public participation process
- General discussion
- Close



Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

2

MEETING PROTOCOL

- Please switch cell phones off or onto a silent setting.
- There will be a dedicated question and answer session.
- Before asking a question, please raise your hand and state your name clearly so that we may correctly record it in the minutes.



Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

3

OVERVIEW OF THE CURRENT OPERATIONS

- Tshipi currently holds the following material authorisations:
 - An approved Mining Right;
 - An EMPr approved by the DMR, as amended;
 - An EA (issued by the DMR); and
 - An IWUL issued by the DWS.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled.
- Tshipi is proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.
- There is still a life of mine of 20 years.

Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

4

OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Specialist (Environmental) Studies - which commenced in Q4 2018, indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal.
- An alternative closure and rehabilitation strategy offers:
 - The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water
 - The opportunities for enhanced land use increase with access to surface water
 - An alternative closure option will allow for earlier rehabilitation of waste rock dumps
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.



5

OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

- Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:
 - Concurrent backfill only i.e. in-pit dumping during mining operations only;
 - Sloping and rehabilitation of waste rock dumps remaining on surface;
 - Access to readily available future water supply; and
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.



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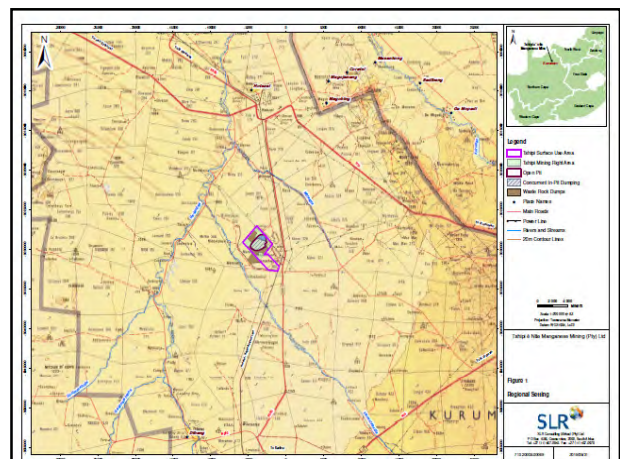
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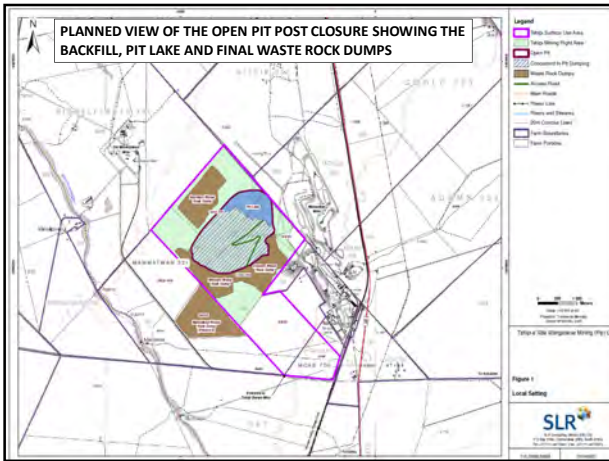
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- Focus on facilitating environmentally sustainable mining
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- The sustainable end state must reflect local conditions, regulatory complexities, stakeholder expectations, environmental opportunities and technical solutions.
- The mind shift from classic mine closure (returning the land to its pre-mining state) to thinking focussing on a transitional economy.



7





ALTERNATIVES CONSIDERED

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.

Complete backfill

Partial backfill

Concurrent backfilling (in-pit dumping)

No backfilling

- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.

ALTERNATIVES CONSIDERED

Option	Pro's	Con's
Complete backfilling	<ul style="list-style-type: none"> Already approved in terms of MPRDA Limited residual post closure impacts Grazing re-established for an additional 11 large stock units 	<ul style="list-style-type: none"> No access to a pit lake No possibility to enhance alternative land uses Sterilised future underground resources Does not allow for early rehabilitation of the waste rock dumps Will take approximately 10 years to fill the pit
Partial backfilling	<ul style="list-style-type: none"> Promote the use of alternative land uses Access to surface aggregate Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> No access to a pit lake Increased residual post closure impacts Sterilised future underground resources Loss of additional grazing Will take almost 10 years to partially fill the pit
Concurrent backfilling (in-pit dumping)	<ul style="list-style-type: none"> Promote the use of alternative land uses Easy access to underground resources Access to even more surface aggregate Access to pit lake Better long term socio-economic spinoffs Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> Increased residual post closure impacts Loss of additional grazing
No backfill	<ul style="list-style-type: none"> Easy access to underground resources Access to largest surface aggregate Better long term socio-economic spinoffs Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> Limited use of pit lake (too steep to access) Limited possibility to enhance alternative land uses Additional disturbed areas (WRD's) Increased residual post closure impacts Loss of additional grazing

ALTERNATIVES CONSIDERED

The "Big hole" in Kimberly, an example of what must be avoided in terms of pit lake development.

ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – BAR process	<ul style="list-style-type: none"> NEMA EA Application Stakeholder engagement EMPR and supporting specialist studies 	DMR

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ENVIRONMENTAL PROCESS

What?

- Environment definition (water, biodiversity, etc).
- Assessment of the potential impacts of the proposed project on the environment.
- Implementing appropriate management measures and development of monitoring programmes.

Why?

- Legal requirement and it is the right thing to do

How?

- Basic Assessment Process:
 - Identification and participation of I&APs (landowners, adjacent landowners, land users, commenting and regulatory authorities).
 - Assessment of impacts with input from specialists (where applicable).
 - Identification of possible post closure mitigation measures.
 - Outline mitigation measures including post closure monitoring plan.

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ENVIRONMENTAL PROCESS

Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor

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SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR

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STATUS OF THE EXISTING ENVIRONMENT

- Tshipi falls in the Kalahari Manganese Field
- Area is characterised by hot summer temperatures, colder winter temperatures, low rainfall and high evaporation rates
- Natural topography at the mine has been influenced by existing mining activities
- Soils have low agricultural potential (due to low rainfall) but has potential for supporting grazing
- Limited evidence of wild faunal species due to the presence of mining and farming activities
- Tshipi is located Kathu Bushveld and the Griqualand West Centre of Endemism. Protected trees species include the Camel Thorn and Grey Camel Thorn
- No surface water features on site
- The average ground water level ranges from 41 to 74 mbgl. Third-party boreholes are used for livestock watering



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STATUS OF THE EXISTING ENVIRONMENT

- Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.
- Noise levels near Tshipi are mainly as a result of surrounding farming activities, localised traffic and mining operations.
- No heritage/cultural sites have been identified and there is a low possibility of palaeontological
- Unemployment and education levels in the area are higher than the provincial and municipal average. Water and sanitation provision is very good.
- Land uses surrounding Tshipi include livestock grazing, game farming, mining, a solar farm and sparsely situated residences.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Soils and land capability	• With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture).
Biodiversity - Aquatic	• The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability.
Biodiversity – Terrestrial	• The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats.
Surface water	• The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use.
Groundwater	• The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Air	• In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area.
Noise	• No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities.
Visual	• In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation.
Economics	• The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit.
Social benefits	• Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts.
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe.
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity.

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PUBLIC PARTICIPATION PROCESS

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR) – May 2019
- Hold focussed meetings (DWS and DAFF) – June 2019
- The public participation will be in accordance with the NEMA 2014 EIA regulations
- The public consultation includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin) – June 2019
 - Distribute BID informing I&APs and commenting authorities about the proposed project, public meeting and related processes – June 2019
 - Placement of site notices in two languages (English and Afrikaans) – June 2019
 - Review of the BAR and summary – August 2019



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PUBLIC PARTICIPATION PROCESS

Review of the BAR:

- Hard copies of the BAR will be made available for review for 30 days at the following venues:
 - John Taolo Gaetsewe District Municipality
 - Joe Morolong Local Municipality
 - Hotazel, Black Rock, Kuruman and Kathu public libraries
- Distribution of a summary (English and Afrikaans) of the BAR via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

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QUESTIONS, COMMENTS AND QUERIES

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PUBLIC PARTICIPATION AND ENVIRONMENTAL CONSULTANT DETAILS

SLR Consulting (Africa) Pty Ltd
Natasha Smyth
Tel: 011 467 0945 Fax: 011 467 0978
nsmyth@slrconsulting.com



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CLOSE

Thank you for your time and participation



26

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
PUBLIC MEETING**

Date	26 June 2019
Venue:	Kalahari Country Club
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	710.20008.00069
Purpose:	<p>The purpose of the meeting was to:</p> <ul style="list-style-type: none"> • To provide an overview of the proposed project; • To provide an overview of the environmental assessment process that will be undertaken for the proposed project; • To provide an overview and obtain input on the existing status of the environment; • To outline and obtain input on impacts identified for the proposed project; • To record any comments and issues raised; and • To agree on the way forward and the logistics for report distribution.
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation providing an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal.

An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised and responses provided

Issues raised	By whom	Response provided
Is Tshipi using its own water or is it sourcing water from The Vaal Gamagara?	Moses Moalani (Care for Nature, NGO)	Tshipi is sourcing water from the Vaal Gamagara. (Natasha Smyth- SLR).
Do you access water from boreholes?		Tshipi has recently submitted a water use licence application to the Department of Water and Sanitation for use the two boreholes on site. Once the license is authorised, the boreholes will be used. (Natasha Smyth – SLR).
Do you intend on rehabilitating the open pit?		The current EMPr caters for complete backfilling, but specialist investigations indicate this option to be sub-optimal when considering technical, commercial, legal, socio-economic and environmental factors. Tshipi is therefore proposing to change the current closure commitment from a complete backfilling of the open pit to concurrent backfilling (in-pit dumping) (Natasha Smyth – SLR).

Issues raised	By whom	Response provided
Is the license for closure only for this portion (open pit)?	Moses Moalani (Care for Nature, NGO)	What's important to understand is that there are no plans to rehabilitate now. The approved EMP commits us to only do so at the end of the life of mine, in about 20 years' time (Brad Rip- Tshipi)
Will there be another public meeting?		Another meeting has not been arranged; however Interested and Affected Parties (I&APs) still have an opportunity to submit comments once they have received the Basic Assessment Report (BAR) for review and comment. Any comments raised will be included in the final BAR that will be submitted to the DMR for decision making purposes (Natasha Smyth – SLR).
Were department officials invited to this public meeting?		Yes, departmental officials were invited. It is however important to note that it is not always possible for departments to attend public meetings based on resource constraints and distance constraints. For this purpose, key focussed meeting were arranged with the Department of Water and Sanitation, the Department of Agriculture, Forestry and Fisheries and the Department of Environment and Conservation (Natasha Smyth – SLR).
Were landowners made aware of the meeting too?		Yes. Landowners, commenting authorities, other mining companies, ward councillors and other interested and affected parties were notified (Natasha Smyth – SLR).
How do you monitor air quality?		There is an existing Air Quality Programme (Nthabeleng Paneng-Tshipi).

4. WAY FORWARD

The way forward is outlined as follows:

- A focussed meeting will be held with the Department of Environment, Forestry and Fisheries on 27 June 2019

- The Basic Assessment Report in support of the proposed project will be made available for public review for a period of 30 days. It is anticipated that this will commence in early August 2019; and
- The Basic Assessment Report will be updated to include any comments received during the review of the report. This updated report will be made submitted to the Department of Mineral Resources for decision making purposes.

5. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by Natasha Smyth.

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Gugu Dhlamini			gdhlamini@slrconsulting.com
Jurie Reyneke	RUSHTAIL	072 525 1761	Michael@rushtail.net
Moses Moalani	Care For Nature	072 745 7161	moseslebogang@gmail.com

Project: TSHIPI EMP 3 CLOSURE PROJECT

SLR Company: AFRICA

Date: 26/06/19

Venue: KALAHARI COUNTRY CLUB

Meeting: PUBLIC MEETING



Name and Surname	Community/Organization	Postal address	Contact numbers	E-mail
JURIE REUVEME	RUGHTAIL	27 MOPANI AVENUE KATHY	072 525 7161	michael@rusheail.net
Nthabeleng Paneng	Tshipi Borwa	Farms Mamatwan 331 + Moab 700 P.O. Box 2098, Kathy 0446	0878451381	Nthabeleng@tshipi.co.za
MOSES MORLANI	(UNBORN GENERAL) CARE FOR NATURE	P.O. Box 146 SANTISGANS KURUMBI 8477	072 7451161	mosesiebogeting@gmail.com
Gugli Dhlamini	SLR		011 467 0945	gdhlamini@slrconsulting.com

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TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION
OPTIMISATION PROJECT - TSHIPI BORWA MINE

PUBLIC AND COMMENTING AUTHORITIES
 MEETING
 June 2019

global environmental and advisory solutions

Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

1

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Tshipi é Ntle
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Tshipi é Ntle
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Tshipi é Ntle
 Manganese Mining
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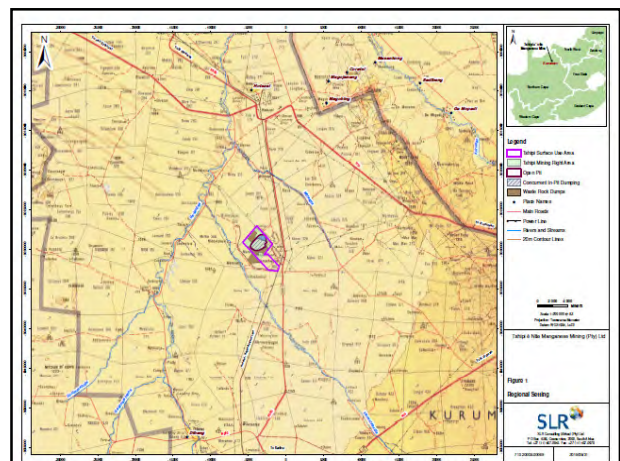
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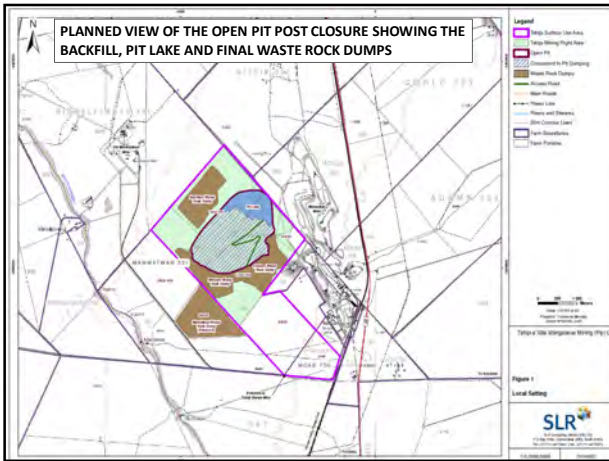
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Partial backfilling	<ul style="list-style-type: none"> Promote the use of alternative land uses Access to surface aggregate Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> No access to a pit lake Increased residual post closure impacts Sterilised future underground resources Loss of additional grazing Will take almost 10 years to partially fill the pit
Concurrent backfilling (in-pit dumping)	<ul style="list-style-type: none"> Promote the use of alternative land uses Easy access to underground resources Access to even more surface aggregate Access to pit lake Better long term socio-economic spinoffs Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> Increased residual post closure impacts Loss of additional grazing
No backfill	<ul style="list-style-type: none"> Easy access to underground resources Access to largest surface aggregate Better long term socio-economic spinoffs Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> Limited use of pit lake (too steep to access) Limited possibility to enhance alternative land uses Additional disturbed areas (WRD's) Increased residual post closure impacts Loss of additional grazing

ALTERNATIVES CONSIDERED

The "Big hole" in Kimberly, an example of what must be avoided in terms of pit lake development.

ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
Environmental Authorisation (EA)	National Environmental Management Act No. 107 of 1998 and the Environmental Impact Assessment (EIA) Regulations, 2014 as amended – BAR process	<ul style="list-style-type: none"> NEMA EA Application Stakeholder engagement EMPR and supporting specialist studies 	DMR

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ENVIRONMENTAL PROCESS

What?

- Environment definition (water, biodiversity, etc).
- Assessment of the potential impacts of the proposed project on the environment.
- Implementing appropriate management measures and development of monitoring programmes.

Why?

- Legal requirement and it is the right thing to do

How?

- Basic Assessment Process:
 - Identification and participation of I&APs (landowners, adjacent landowners, land users, commenting and regulatory authorities).
 - Assessment of impacts with input from specialists (where applicable).
 - Identification of possible post closure mitigation measures.
 - Outline mitigation measures including post closure monitoring plan.

14



ENVIRONMENTAL PROCESS

Commenting authorities

- Department of Environment and Nature Conservation
- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor

15



SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
Geology	Qualitatively assessed - SLR
Topography	Qualitatively assessed - SLR
Soils & land capability	Soils, land use and land capability study – Terra Africa
Biodiversity	Terrestrial and aquatic biodiversity study – SAS and STS
Surface water	Hydrology study - SLR
Groundwater and pit lake	Groundwater study and pit lake study - SLR
Air	Air quality study - Airshed
Noise	Noise study - Airshed
Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR

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STATUS OF THE EXISTING ENVIRONMENT

- Tshipi falls in the Kalahari Manganese Field
- Area is characterised by hot summer temperatures, colder winter temperatures, low rainfall and high evaporation rates
- Natural topography at the mine has been influenced by existing mining activities
- Soils have low agricultural potential (due to low rainfall) but has potential for supporting grazing
- Limited evidence of wild faunal species due to the presence of mining and farming activities
- Tshipi is located Kathu Bushveld and the Griqualand West Centre of Endemism. Protected trees species include the Camel Thorn and Grey Camel Thorn
- No surface water features on site
- The average ground water level ranges from 41 to 74 mbgl. Third-party boreholes are used for livestock watering



17

STATUS OF THE EXISTING ENVIRONMENT

- Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.
- Noise levels near Tshipi are mainly as a result of surrounding farming activities, localised traffic and mining operations.
- No heritage/cultural sites have been identified and there is a low possibility of palaeontological
- Unemployment and education levels in the area are higher than the provincial and municipal average. Water and sanitation provision is very good.
- Land uses surrounding Tshipi include livestock grazing, game farming, mining, a solar farm and sparsely situated residences.



18

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Soils and land capability	• With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture).
Biodiversity - Aquatic	• The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability.
Biodiversity – Terrestrial	• The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats.
Surface water	• The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use.
Groundwater	• The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site.



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POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Air	• In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area.
Noise	• No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities.
Visual	• In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation.
Economics	• The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit.
Social benefits	• Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area.



20

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts.
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe.
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity.

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PUBLIC PARTICIPATION PROCESS

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR) – May 2019
- Hold focussed meetings (DWS and DAFF) – June 2019
- The public participation will be in accordance with the NEMA 2014 EIA regulations
- The public consultation includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin) – June 2019
 - Distribute BID informing I&APs and commenting authorities about the proposed project, public meeting and related processes – June 2019
 - Placement of site notices in two languages (English and Afrikaans) – June 2019
 - Review of the BAR and summary – August 2019



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PUBLIC PARTICIPATION PROCESS

Review of the BAR:

- Hard copies of the BAR will be made available for review for 30 days at the following venues:
 - John Taolo Gaetsewe District Municipality
 - Joe Morolong Local Municipality
 - Hotazel, Black Rock, Kuruman and Kathu public libraries
- Distribution of a summary (English and Afrikaans) of the BAR via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

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QUESTIONS, COMMENTS AND QUERIES

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PUBLIC PARTICIPATION AND ENVIRONMENTAL CONSULTANT DETAILS

SLR Consulting (Africa) Pty Ltd
Natasha Smyth
Tel: 011 467 0945 Fax: 011 467 0978
nsmyth@slrconsulting.com



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CLOSE

Thank you for your time and participation



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TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

**ALTERNATIVE CLOSURE AND REHABILITATION PROJECT
DEPARTMENT OF AGRICULTURE, FORESTRY AND FISHERIES (DAFF) AND DEPARTMENT OF
ENVIRONMENT AND NATURE CONSERVATION (DENC) FOCUSED MEETING**

Date	27 June 2019
Venue:	Department of Agriculture, Forestry and Fisheries offices in Upington
SLR company:	SLR Consulting (Africa) (Pty) Ltd (SLR)
Project number:	710.20008.00069
Purpose:	The purpose of the meeting was to: <ul style="list-style-type: none"> • Provide an overview of current operations; • Outline the motivation and project alternatives considered; • Provide an overview of the environmental process; • Provide an overview of specialist studies to be undertaken; • Provide an overview of the existing status of the environment; • Provide an overview of potential impacts; and • Provide an overview of the public participation process.
Attendance:	An attendance register is presented in Appendix 1.

1. OPEN AND INTRODUCTION

Natasha Smyth from SLR Consulting (Africa) (Pty) Ltd (SLR) opened the meeting and welcomed all attendees. Thereafter, Natasha Smyth introduced herself as an independent Environmental Assessment Practitioner, appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) to undertake the environmental assessment process for the proposed project.

Refer to Appendix 1 for the full list of attendees from Tshipi, the Department of Agriculture, Forestry and Fisheries and the Department of Environment and Nature Conservation present at the meeting.

2. PRESENTATION

Natasha Smyth gave a presentation providing an overview of the proposed project. In this regard, it was highlighted that Tshipi currently operates the open cast Tshipi Borwa Mine in accordance with an approved Environmental Management Programme Report (EMPr). The approved EMPr commits Tshipi to restore the surface to a pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled once mining is complete. Recent specialist investigations indicate that when considering technical, commercial, legal and socio-economic and environmental factors, backfilling the open pit is sub-optimal.

An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and

- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping.

Further information pertaining to the environmental assessment process is provided in the presentation included in Appendix 2.

3. QUESTION SESSION

Comments raised during the meeting have been recorded and are included in Table 1 below. Where a response was provided the response has been included in the table.

Table 1: Record of comments raised and responses provided during the meeting

Issues raised	By whom	Response provided
With the changes in the departmental structures, is there anyone else we should be engaging with?	Natasha Smyth- SLR	The Department is still operating as it used to, until otherwise instructed. I will remain your contact person (Jacoline Mans- DAFF)
Will the water from the pit-lake be clean, will it not be contaminated?	Jacoline Mans- DAFF	The water quality will be fine up until 100 years post mine closure, thereafter some parameters will start to exceed and will eventually deteriorate. That would be without any form of intervention. The pit-lake specialists have suggested the use of floating wetlands, which will mitigate the water quality issue. So based on what they've modelled and predicted, we don't think the water quality is going to be an issue because it will be managed through passive and active treatment measures (Natasha Smyth- SLR).
In terms of protected trees and plants, how will the footprint differ from what's currently authorised?	Jacoline Mans- DAFF	The footprint itself won't differ because the waste rock dumps are already catered for in the existing EMPs. There's no intention on impacting on protected trees as a part of this post closure project. The proposed project would aim to enhance the biodiversity of the area by bringing in and reintroducing protected tree species as far as possible. There's no plan for the removal of protected tree species (Natasha Smyth- SLR). The current commitment is for Tshipi, after 20 years, to remove the dumps and place the waste rock back into the pit, which would be a 10 year plus exercise. Tshipi would then need to

Issues raised	By whom	Response provided
		rehabilitate the original surfaces as well as the pit footprint. All that changes now is that those dumps will become permanent and Tshipi will just rehabilitate the profile of the dumps e.g. the slopes. And also, instead of having a flat top surface in the pit, there'll be a partial backfill so that will also be rehabilitated (Brad Rippon- Tshipi).
But will your dumps not increase in terms of surface area? Will they not have an impact on currently undisturbed areas?		It is possible that sloping the dumps may need some species to be removed, but they will be reintroduced in the rehabilitated areas. Where buildings are going to be left for infrastructure or areas that would be identified for future land uses (for example aquaponics and hydroponics), areas already disturbed by mining infrastructure would be used. The aim is not to disturb new areas (Natasha Smyth- SLR).
So your current waste rock dumps are not rehabilitated?		No. As long as Tshipi is obliged to put the waste rock back into the pit, there's no way the dumps would be rehabilitated now. The other advantage of the project is that Tshipi can start rehabilitating the permanent sides of the dumps and do the dump rehabilitation simultaneously while mining, instead of at end of mining (Brad Rippon- Tshipi).
In terms of alternative land use on the permanent dumps, is it not possible to invite solar plant companies to place their solar panels on the permanent dumps instead of disturbing the natural veld next to the mine?	Jacoline Mans - DAFF	That's a good suggestion. Tshipi will consider it except so long as it is designated a mine there are statutory complications (Brad Rip- Tshipi).
In terms of your existing Environmental Authorisation, was there not something about offsets that Tshipi had to do? So what are your thoughts in terms of the offsets?		The current EMP says that Tshipi should currently start investigating an offset, because eventually with the footprint that has already been approved, there might be a point where Tshipi triggers an offset. Tshipi has undertaken the investigation using Natalie Birch (Nthabeleng Paneng- Tshipi)
Is a biodiversity offset not already a condition in the Environmental Authorisation?		The condition is phrased that an investigation must be conducted to assess whether a biodiversity offset is triggered (Nthabeleng Paneng- Tshipi).
But there's a sign that reads "Tshipi biodiversity offset area", I'm not sure whether it's still there?		I am aware of the sign that you are referring to. This sign should not have been erected and plans are being made to remove the sign. No offset area has been identified yet (Nthabeleng Paneng- Tshipi)
Is it possible for you to send DAFF and DENC the offset investigation report?	Samantha De la Fontaine- DENC	Yes, I will send it through (Nthabeleng Paneng- Tshipi).
Please send DAFF and DENC an electronic copy (CD) of the Basic Assessment Report?	Jacoline Mans- DAFF	Noted. (Natasha Smyth- SLR)

4. WAY FORWARD

The way forward was outlined as follows:

- The Basic Assessment Report in support of the proposed project will be made available for public review for a period of 30 days. It is anticipated that this will commence in early August 2019; and
- The Basic Assessment Report will be updated to include any comments received during the review of the report. This updated report will be made submitted to the Department of Mineral Resources for decision making purposes.

5. GENERAL

Brad Rip explained that DAFF & DENC could expect up to three tree removal permit applications from Tshipi in the near future:

- One in terms of a DENC Environmental Approval (granted to Eskom, transferred to Tshipi for duration of construction) for the removal of trees along the route of a to be constructed 132kV overhead line and a 132/11kV substation, located on privately owned property and Tshipi owned property respectively, over which Eskom has concluded servitude option agreements;
- Two in terms of a DMR approved Tshipi EA/EMP amendment for the extension of the West waste rock dump and construction of an 11kV overhead line on the southern part of portion 8 of the farm Mamatwan 331 over which Tshipi has a surface right (SR) i.e. is the owner; and
- BR indicated that it would be appreciated if these applications could be treated with some urgency, if at all possible.

6. CLOSE

Attendees were thanked for their input and for making the time to attend the meeting. The meeting was closed by Natasha Smyth.

APPENDIX 1: ATTENDANCE REGISTER

Name and Surname	Organisation	Contact numbers	E-mail
Brad Rip	Tshipi	082 89 40216	bradrip@mwebbiz.co.za
Nthabeleng Paneng		087 845 1381	nthabeleng@tshipi.co.za
Natasha Smyth	SLR	011 467 0645	nsmyth@slrconsulting.com
Gugu Dhlamini			gdhlamini@slrconsulting.com
Samantha De la Fontaine	DENC	054 338 4800	sdelafontaine@gmail.com
Jacoline Mans	DAFF	082 808 2737	JacolineMa@daff.gov.za

Project: TSHIPPI ALTERNATIVE CLOSURE

SLR Company: AFRICA

Date: 27 JUNE 2019

Venue: DAFF OFFICES IN UPINGTON

Meeting: DAFF AND DENC FOCUSED MEETING



Name and Surname	Community/Organization	Postal address	Contact numbers	E-mail
<i>BRA LIP</i>	<i>TSHIPPI</i>		<i>082-89-40216</i>	<i>bradrip@ mwebbys.co.za</i>
Samantha De la Fontaine	DENC	Evelina de Bun Building C/O River + Nelson Mandela, Upington	054 339 4800	sdefontaine@gmail.com
Jacoline Mans	DAFF	PO Box 2782 Upington 8800	082 808 2737	JacolineMa@daff.gov.za
Gugu Dhlamini	SLR	PO Box 1596 Crameriew 2060	011 467 0945	gdhlamini@slrconsulting.com
Natasha Smyth	SLR	PO Box 1596 Crameriew 2060	083 226 8570	nsmyth@slrconsulting.com
Nthabeleng Paneng	Tshipi Borwa	Farms Mamabon & Maab 700 P.O. Box 2098, Katun, 8416	087 845 1381	nthabeleng@tshipi: co.za.

Note: SLR will use your contact information to communicate future project information and by providing your details on this attendance register it does not mean that you are giving consent for the project.

APPENDIX 2: PRESENTATION

TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
ALTERNATIVE CLOSURE AND REHABILITATION
OPTIMISATION PROJECT - TSHIPI BORWA MINE

PUBLIC AND COMMENTING AUTHORITIES
 MEETING
 June 2019

global environmental and advisory solutions

Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

1

AGENDA

- Welcome and introductions
- Meeting protocol
- Overview of current operations
- Overview and motivation for the proposed project
- Alternatives considered
- Environmental process overview
- Specialist studies
- Overview of the existing status of the environment
- Potential impacts (environmental and socio-economic)
- Summary of the public participation process
- General discussion
- Close



Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

2

MEETING PROTOCOL

- Please switch cell phones off or onto a silent setting.
- There will be a dedicated question and answer session.
- Before asking a question, please raise your hand and state your name clearly so that we may correctly record it in the minutes.

Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

3

OVERVIEW OF THE CURRENT OPERATIONS

- Tshipi currently holds the following material authorisations:
 - An approved Mining Right;
 - An EMPr approved by the DMR, as amended;
 - An EA (issued by the DMR); and
 - An IWUL issued by the DWS.
- The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled.
- Tshipi is proposing to change the current closure commitment to achieve a more sustainable and optimised outcome.
- There is still a life of mine of 20 years.




Tshipi é Ntle
 Manganese Mining
 Borwa, Botswana

SLR

4

OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Specialist (Environmental) Studies - which commenced in Q4 2018, indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal.
- An alternative closure and rehabilitation strategy offers:
 - The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water
 - The opportunities for enhanced land use increase with access to surface water
 - An alternative closure option will allow for earlier rehabilitation of waste rock dumps
- Completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.



5

OVERVIEW AND MOTIVATION FOR PROPOSED PROJECT

- Tshipi is therefore proposing to change the current closure commitment (complete backfill of the open pit) to concurrent in-pit dumping. In this regard, the proposed project focusses on:
 - Concurrent backfill only i.e. in-pit dumping during mining operations only;
 - Sloping and rehabilitation of waste rock dumps remaining on surface;
 - Access to readily available future water supply; and
 - Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.



6

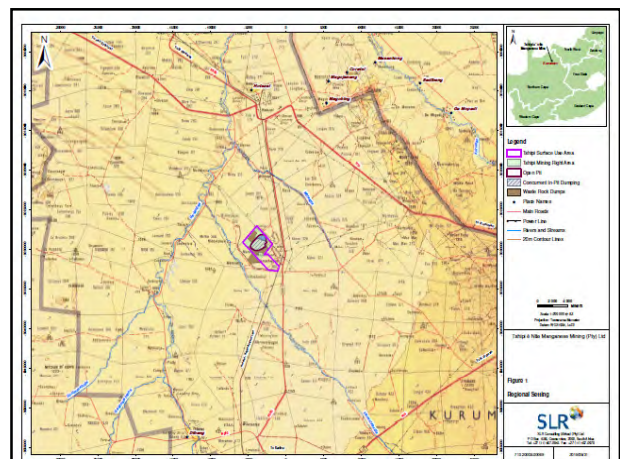
OVERVIEW AND MOTIVATION OF PROPOSED PROJECT

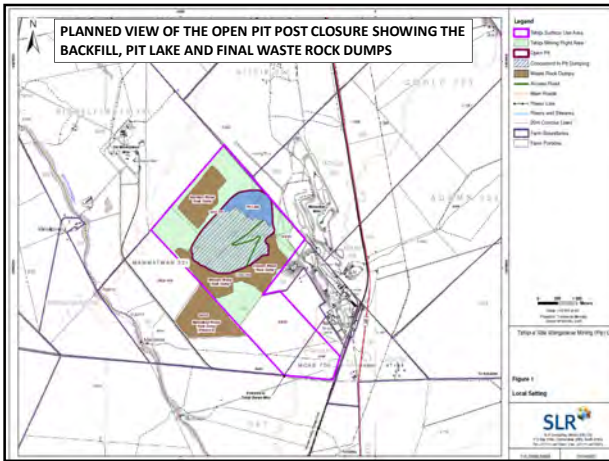
2nd Draft FP Regulations:

- Focus on facilitating environmentally sustainable mining
- Highlights that financial provisioning is to ensure operations can be brought to the approved sustainable end state at closure
- Companies have the scope to define a credible sustainable end state in the final rehabilitation, decommissioning and mine closure plan.
- The sustainable end state must reflect local conditions, regulatory complexities, stakeholder expectations, environmental opportunities and technical solutions.
- The mind shift from classic mine closure (returning the land to its pre-mining state) to thinking focussing on a transitional economy.



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ALTERNATIVES CONSIDERED

Project alternatives:

- Alternatives considered included: full backfill, partial backfilling, concurrent in-pit dumping and no backfilling.

Complete backfill

Partial backfill

Concurrent backfilling (in-pit dumping)

No backfilling

- Concurrent in-pit dumping was considered the most practical option from a technical, commercial and environmental perspective.

ALTERNATIVES CONSIDERED

Option	Pro's	Con's
Complete backfilling	<ul style="list-style-type: none"> Already approved in terms of MPRDA Limited residual post closure impacts Grazing re-established for an additional 11 large stock units 	<ul style="list-style-type: none"> No access to a pit lake No possibility to enhance alternative land uses Sterilised future underground resources Does not allow for early rehabilitation of the waste rock dumps Will take approximately 10 years to fill the pit
Partial backfilling	<ul style="list-style-type: none"> Promote the use of alternative land uses Access to surface aggregate Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> No access to a pit lake Increased residual post closure impacts Sterilised future underground resources Loss of additional grazing Will take almost 10 years to partially fill the pit
Concurrent backfilling (in-pit dumping)	<ul style="list-style-type: none"> Promote the use of alternative land uses Easy access to underground resources Access to even more surface aggregate Access to pit lake Better long term socio-economic spinoffs Allows for early rehabilitation of the waste rock dumps 	<ul style="list-style-type: none"> Increased residual post closure impacts Loss of additional grazing
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ALTERNATIVES CONSIDERED

The "Big hole" in Kimberly, an example of what must be avoided in terms of pit lake development.

ENVIRONMENTAL PROCESS

Permissions required for the proposed project:

Authorisation required	Applicable legislation	Key process elements	Competent authority
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ENVIRONMENTAL PROCESS

What?

- Environment definition (water, biodiversity, etc).
- Assessment of the potential impacts of the proposed project on the environment.
- Implementing appropriate management measures and development of monitoring programmes.

Why?

- Legal requirement and it is the right thing to do

How?

- Basic Assessment Process:
 - Identification and participation of I&APs (landowners, adjacent landowners, land users, commenting and regulatory authorities).
 - Assessment of impacts with input from specialists (where applicable).
 - Identification of possible post closure mitigation measures.
 - Outline mitigation measures including post closure monitoring plan.

14



ENVIRONMENTAL PROCESS

Commenting authorities

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- Department of Agriculture, Forestry and Fisheries
- Department of Rural Development and Land Reform
- Provincial South Africa Heritage Resource Agency
- Department of Water and Sanitation

Local authorities

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality and applicable ward councillor

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SPECIALIST STUDIES

Aspect	Specialist input (where applicable)
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Topography	Qualitatively assessed - SLR
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Visual	Visual study – Graham Young
Heritage/cultural resources	Reference to existing studies
Socio-economic	Socio-economic study - Mercury
Closure	Preliminary closure plan - SLR

16



STATUS OF THE EXISTING ENVIRONMENT

- Tshipi falls in the Kalahari Manganese Field
- Area is characterised by hot summer temperatures, colder winter temperatures, low rainfall and high evaporation rates
- Natural topography at the mine has been influenced by existing mining activities
- Soils have low agricultural potential (due to low rainfall) but has potential for supporting grazing
- Limited evidence of wild faunal species due to the presence of mining and farming activities
- Tshipi is located Kathu Bushveld and the Griqualand West Centre of Endemism. Protected trees species include the Camel Thorn and Grey Camel Thorn
- No surface water features on site
- The average ground water level ranges from 41 to 74 mbgl. Third-party boreholes are used for livestock watering



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STATUS OF THE EXISTING ENVIRONMENT

- Ambient air quality has been influenced by mines, household fuel combustion, vehicle tailpipe emissions and agricultural activities.
- Noise levels near Tshipi are mainly as a result of surrounding farming activities, localised traffic and mining operations.
- No heritage/cultural sites have been identified and there is a low possibility of palaeontological
- Unemployment and education levels in the area are higher than the provincial and municipal average. Water and sanitation provision is very good.
- Land uses surrounding Tshipi include livestock grazing, game farming, mining, a solar farm and sparsely situated residences.



18

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Soils and land capability	• With access to future readily available water supply, the proposed project has the potential to promote the optimal use of soil resources to enhance alternative land uses (eg. agriculture).
Biodiversity - Aquatic	• The proposed project has the potential to create and enhance aquatic habitats through the availability of a functional pit lake, which in turn may increase biodiversity complexity, diversity, community sensitivity and overall community stability.
Biodiversity – Terrestrial	• The proposed project has the potential to increase faunal and floral species populations by re-creating a terrestrial habitat through access to a functional pit lake, that otherwise would have been limited as a result of the lack of stable freshwater habitats.
Surface water	• The proposed project has the potential to provide access to a readily available future water supply (pit lake) which may be used for an alternative land use.
Groundwater	• The proposed project has the potential to minimise the extent of a contamination plume that could migrate off-site.



19

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Air	• In the absence of rehabilitation, the proposed project has the potential to generate wind-blown dust from a larger exposed area.
Noise	• No noticeable noise impacts are anticipated as a result of closure but noise could be generated by future post closure land use activities.
Visual	• In the absence of rehabilitation, the proposed project has the potential to general negative visual views through waste rock dumps that will remain on surface post closure. With rehabilitation visual impacts will be improved with rehabilitation.
Economics	• The proposed project has the potential to have a positive net economic impact on the national, local and regional economy by allowing for the efficient exploitation of future underground resources located to the north of the current open pit.
Social benefits	• Alternative land use has the potential to enhance alternative employment and economic development that has the potential to improve livelihoods of individuals living in the local area.



20

POTENTIAL IMPACTS

Aspect	Potential environmental and socio-economic impact
Sense of place	<ul style="list-style-type: none"> By establishing an alternative land use at closure, the proposed project would change the nature of the site and could be perceived by surrounding land users as either positive or negative. An alternative closure option will allow for earlier rehabilitation of waste rock dumps which would influence the status of rehabilitation at closure thereby minimising impacts.
Safety of third parties	<ul style="list-style-type: none"> In the absence of rehabilitation, the proposed project would present a partially open pit that could be harmful to third parties and animals. Mitigation can make the land safe.
Land use	<ul style="list-style-type: none"> The establishment of a functional pit lake has the potential to enhance alternative land uses associated with access to surface water and increased biodiversity.

21

PUBLIC PARTICIPATION PROCESS

I&AP and authority notification and consultation

- Hold pre-application meetings (DMR) – May 2019
- Hold focussed meetings (DWS and DAFF) – June 2019
- The public participation will be in accordance with the NEMA 2014 EIA regulations
- The public consultation includes the following:
 - Placement of an advert in two local papers (Kathu Gazette and Kalahari Bulletin) – June 2019
 - Distribute BID informing I&APs and commenting authorities about the proposed project, public meeting and related processes – June 2019
 - Placement of site notices in two languages (English and Afrikaans) – June 2019
 - Review of the BAR and summary – August 2019



22

PUBLIC PARTICIPATION PROCESS

Review of the BAR:

- Hard copies of the BAR will be made available for review for 30 days at the following venues:
 - John Taolo Gaetsewe District Municipality
 - Joe Morolong Local Municipality
 - Hotazel, Black Rock, Kuruman and Kathu public libraries
- Distribution of a summary (English and Afrikaans) of the BAR via fax, email or post.
- SMS notifications.
- Electronic copies will be made available on the SLR website.

23

QUESTIONS, COMMENTS AND QUERIES

24

PUBLIC PARTICIPATION AND ENVIRONMENTAL CONSULTANT DETAILS

SLR Consulting (Africa) Pty Ltd
Natasha Smyth
Tel: 011 467 0945 Fax: 011 467 0978
nsmyth@slrconsulting.com



25

CLOSE

Thank you for your time and participation



26



ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT AT
THE TSHIPI BORWA MINE

PUBLIC INVOLVEMENT DATABASE

Table 1: Project Team

Interest group	Title	Name	Surname	Organisation	Address	Interest	Email
Project team	Mr.	Hendrik	Louw	South32		Project Team	Hendrik.louw@south32.net
	Ms.	Mase	Rantsieng				mase.rantsieng@south32.net
Environmental consultants	Ms	Natasha	Smyth	SLR Consulting (South Africa) (Pty) Ltd	P.O. Box 1596 Cramweview 2060	Project Manager	nsmyth@slrconsulting.com
	Ms	Alex	Pheiffer			Project Reviewer	Apheiffer@slrconsulting.com
	Mr	Clive	Phashe			Project Assistant	cphashe@slrconsulting.com
Specialist Team	Mr	Steven	Van Staden	Scientific Aquatic Services		Biodiversity specialist	stephen@sasenvgroup.co.za
	Mr	Graham	Young	Graham Young Landscape Architect		Visual Specialist	grahamyounglandarch@gmail.com
	Mr	Mihai	Muresan	SLR Consulting (South Africa) (Pty) Ltd	P.O. Box 1596 Cramweview 2060	Hydrogeologist	mmuresan@slrconsulting.com
	Mr	Steve	Van Niekerk			Closure specialist	svanniekerk@slrconsulting.com
	Mr	Kevin	Burse			Hydrologist	kburse@slrconsulting.com
	Mr	Matte	Goode			Hydrologist and hydrogeologist	mgoode@slrconsulting.com
	Mr	Jaime	Robinson			Geochemist	jrobinson@slrconsulting.com
	Ms	Hanlie	Lieberberg-Enslin	Airshed Planning Professionals		Air Specialist	hanlie@airshed.co.za
	Ms	Renee	von Grunewaldt			Noise Specialist	renee@airshed.co.za
	Ms	Mariné	Pienaar	Terra Africa		Soil and land capability Specialist	mpienaar@terraafrica.co.za

Interest group	Title	Name	Surname	Organisation	Address	Interest	Email
	Mr	Werner	Neethling	Mercury Financial Consultants		Economist	werner@mercuryfc.co.za

Table 2: Landowners within the project area

Name	Surname	Organization	Postal Address	Farm Name
Michael	Kruger	Private Owner	PO Box 358 Kuruman 8460	Moab 700/0
				Goold 329/1
				Milner 327/0
James	Manis	Tshipi e Ntle Manganese Mines Pty Ltd		Mamatwan 331 portion 16
Nthabeleng	Paneng			Mamatwan 331 portion 17
				Mamatwan 331 portion 18
				Mamatwan 331 portion 8

Table 3: Adjacent land owners

Name	Surname	Organization	Postal Address	Farm Name
Miranda	Lombard	Terra Nominees Pty Ltd	P O Box 61820, Marshalltown, Gauteng, 2107	Smart 314/0
Derick	Korff			Rissik 330/1
Alex	Mooya			Middelplaats 332/1
Stephen	Nakanyane	ESKOM	P.O Box 356 Bloemfontein 9300	Adams Portion 1 and 2
Gerrie	Van Schalkwyk			
Benito	Williams			
Nondwe	Khanya			
Frederick	Ludeke			
Andrea	van Gensen			
Rene	De Briun			
Sam	Fiff			Transnet LTD
Cabangile	Zulu	Moab 700/1		
		Shirley 367/3		
		Smart 314/1		
		Rissik 330/2		
		Goold 329/8		
		Mamatwan 331/7		
Theresia	Steyn	Gideon Poolman Familietrust	PO Box 346 Hotazel 8490	Goold 329/6
Andries Matthys	van den Berg	Private Owner	PO Box 1083 Kuruman 8460	Rissik 330/0 and 1
		Andries Matthys Duvenhage Testamente Trust		Mamatwan 331/0
Annalien Elizabeth	Fourie	Private Owner	PO Box 1281 Kuruman 8460	Alton 368/1
Johannes	Pretorius	Private Owner		Shirley 367/1
		Laetitia Penny Trust		Shirley 367/2
Jacomina Maria	Booyesen	Private Owner	2004 Dolomite STR Kuruman 8460	Shirley 367/RE
Machiel Andries	Kruger	Private Owner	P O Box 358 Kuruman 8460	Alton 368/0
				Moab 700/0
				Goold 329/1
				Milner 327/0

Name	Surname	Organization	Postal Address	Farm Name
Madelaine	Pyper		P.O Box 132 Kuruman 8460	Middelplaats 730/0
David and HP	Venter	Saltrim Ranches Pty Ltd	P O Box 91, Kuruman, 8460	Middelplaats 332/0 Adams 328/0
Mase	Rantsieng	Hotazel Manganese Mines Pty Ltd		Mamatwan 331/1 Mamatwan 331/2 Mamatwan 331/3 Adams 328/4 Goold 329/9 Goold 329/5 Middelplaats 332/4 Moab 700/3 Sinterfontein 748/0
James	Manis	Tshipi e Ntle Manganese Mines Pty Ltd		Mamatwan 331/16 Mamatwan 331/17
Nthabeleng	Paneng			Mamatwan 331/18 Mamatwan 331/8
Cupido	Love	United Manganese Kalahari Pty Ltd		Rissik 330/3
Tshivhangwaho	Mudau			
Theresia	Steyn	Gideon Poolman Familietrust	PO Box 346 Hotazel 8490	Goold 326, portion 6
Daniel		Adams Solar Farm		

Table 4: Regulatory and commenting authorities

Title	Name	Surname	Department	Postal Address
Mr.	Philani	Msimango	Department of Water and Sanitation- Northern Cape region	28 Central Road Beaconsfield Kimberley 8301
Ms	Jacoline	Mans	Department of Agriculture, Forestry and Fisheries	26 Olien Street, Louisvale Road, Upington, 8801
Mr	Thulani	Mthombeni	Department of Environment and Nature Conservation	28 Long Street Kimberley 8300
	Gayle	Sitimela		
Ms	Naomi	Mokonopi		
Ms	Samantha	De la Fontaine		
Mr	Ntsundeni	Ravhugoni	Department of Mineral Resources	41 Schmidtsdrift Road Kimberley 8300 P.O Box 6093 Kimberley 8300
Ms	Julia	Katong	Joe Morolong Local Municipality – Ward Councillor (Ward number 4)	PO Box 1480, Kuruman, 8460
Mr	Joe	Masela	Secretary of Ward Committee – Ward 4	PO Box 63 Van Zylsrus 8467
Mr	Tebogo	Tlhoaele	Joe Morolong Local Municipality – Municipal Manager	Private Bag X117, Mothibistad, 8474
Ms	M.	Morwagae	Joe Morolong Local Municipality – Municipal Manager (PA)	
Ms	Dineo	Leutlwetse	Joe Morolong Local Municipality – municipal mayor	
Ms	Seneo	Seleka	Joe Morolong Local Municipality – Environmental manager	
Mr	Moses	Eilerd	John Taolo Gaetsewe District Municipality – Municipal Manager	
Mr	TH	Matlhare	John Taolo Gaetsewe District Municipality – Community Services Manager	PO Box 1480, Kuruman, 8460
Mr	Viljoen	Mothibi	Department of Agriculture and Land Reform - HOD	162 George Street, Private Bag X5018, Kimberley, 8300
Mr	Ryan	Oliver	Department of Rural Development and Land Reform - Land claims comissioner	
Ms	Natasha	Higgitt	South African Heritage Resources Agency	

Table 5: Surrounding Industry and Mines, Non-Government Organisations

Title	Name	Surname	Interest	Designation
Mr	Siphiwe	Likhuleni	Kalagadi Manganese Pty Ltd	Landowner of Olive Pan 282 RE
				Gama 283 Portion 1
Mr	Tshepo	Molai		Whole farm Umtu 281
Mr	Ramon	Henney	Telkom SA (Ltd)	
Ms	Tshepang	Tsekwa	Sebilo Resources	Landowner
Mr	Jan	Theart	Agri Kuruman and Kalagadi Water Verbruikers Forum	
Mr	Albertus	Viljoen	Tshiping Water Use Association	
Ms	Suzanne	Erasmus	WESSA NC	Regional Chairperson
Mr	Elias	Motia		
Mr	Jurie	Kriek		
Mr	Louis	Hauman	BCM Kudumane	
Mr	Hendrik	Arangies	Kudumane Manganese Resources Pty Ltd	
Mr	Conri	Moolman	Kudumane Manganese Resources Pty Ltd	
Mr	Stephen	Nakanyane	ESKOM	Land and Rights
Mr	Gerrie	Van Schalkwyk		Senior Environmental Advisor
Mr	Benito	Williams		
Mr	Nondwe	Khanya		
	Frederick	Ludeke		
	Andrea	van Gensen		

Title	Name	Surname	Interest	Designation
Mr	Rene	De Briun		
Mr	Bonolo	Lekwa	Assmang Ltd	
Mr	Rethabile	Mboya		
Mr	Ashley	Mcleod		
Mr	Doctor	Bvuma	DMB Minerals cc	
Mr	Tumisang	Tagane	AfriBits	
Mr	Ramon	Henney	Telkom SA Ltd	
Mr	Wezi	Banda	Mamatwan Mining	

Table 6: Other IAPS

Title	Name	Surname	Organisation	Interest
Mr	Jurie	Kriek	Lehating Agriculture	
Mr	Jan	Theart	Agri Kuruman and Kalagadi Water Verbruikers Forum	
Mr	Gert	Theart	Landowner	
Mr	Albertus	Viljoen	Tshiping Water Use Association	
Mr	Eben	Anthouissen	Mac Mac Agri	
Mrs	Theresia	Steyn	Portion 6 Goold, Rissik 330	Owner
Mr	Madelaine	Pyper	Middelplaats 730	Land Owner
Mr	Johan	Houps	Smartt 314	Land user
Mr	Niekie	Kruger	Goold Ptn 1	
Mr	Carel & Martha	Reyneke	Portion 2 Goold 329	
Ms	Justine	Matabatha	Provincial Government of the North West Province	Portion 1 Moab 700.
	Mothusi	Loeto		
	Tshifhiwa	Ravele	IAP	
Mr	Moses	Moalani	Care For Nature	
Mr	Jurie	Reyneke	Rushtail	
Mr	Joseph	Matshidiso	IAP	

DMR

**Acknowledgement
letter of application.**



mineral resources

Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA

Private Bag X 6093, Kimberley, 8300, 41 Schimidtdrift Road
Ground Floor, old Telkom Building, Kimberley 8300 Tel: 053 807 1750 Fax: 053 832 5671
Email: humbulani.mashau@dmr.gov.za Ref No: NC 30/5/1/2/2/1/ (206) MR

From: Mineral Regulation

Enquiries: Humbulani Mashau

BY MAIL

The Directors

Tshipi Entle Manganese Mine(Pty) Ltd

P.O Box 2098

Kathu

8446

Attention: Natash Smyth

Fax: nsmyth@slrconsultion.com

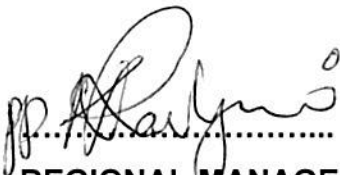
ACKNOWLEDGEMENT OF AN APPLICATION FOR AMENDMENT OF ENVIRONMENTAL AUTHORISATION LODGED IN TERMS OF REGULATION 31 OF ENVIRONMENTAL IMPACT ASSESSMENT (EIA) REGULATIONS, 2014 OF NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT 107 OF 1998) AS AMENDED FOR MINING RIGHT AND RELATED INFRASTRUCTURAL ACTIVITIES ON THE FARM MAMATWAN 331, PORTION 8, 16, 17 AND REMAINING EXTENT OF MOAB 700 SITUATED WITHIN THE MAGISTERIAL DISTRICT OF KURUMAN NORTHERN CAPE REGION.

1. I refer to the abovementioned matter and confirm that your application for an Environmental Authorisation herein referred to as "EA" lodged on **30th July 2019** is hereby acknowledged.
2. Acknowledgement of your application does not grant you permission to commence with Mining activities. Commencement of a listed activity without an environmental authorisation constitutes an offence in terms of Section 49A (1) (a) of NEMA, 1998 (Act 107 of 1998) as amended and upon conviction for such an offence, a person is liable to a fine not exceeding R10 million or to imprisonment for a period not exceeding ten years, or to both such fine and such imprisonment.

3. Kindly note that timeframe as prescribed in terms of Regulation 3 of the EIA Regulation will commence from the date of the acceptance of the application in terms of Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002). Minimum requirements as stipulated on Regulation 16 (1) & (2) of the EIA 2014 Regulations, as amended, provides that an EA application must be accompanied by an acceptance letter in line with Sub Regulation 16 (1) (ix) of the MPRDA regulations, as amended.

NB: Regulation 45 of 2014 EIA Regulations stipulates that "an application in terms of these Regulations lapses and a competent authority will deem the application as having lapsed, if the applicant fails to meet any of the time-frames prescribed in terms of these Regulations, unless extension has been granted in terms of regulation 3(7)."

Hope that this letter will receive your utmost attention.



REGIONAL MANAGER: MINERAL REGULATION

NORTERN CAPE REGION

DATE...03/09/2019

Please quote this office file number for any correspondence as reference

**BAR summary
document
(English and
Afrikaans).**

TSHIPI é NTLÉ MANGANESE MINING (PTY) LTD
BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME
REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI
BORWA MINE
BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC REVIEW

DMR Reference number: NC-00156-MR/102

Dear Sir/Madam

1. INTRODUCTION

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi is also located within the Gamagara Development Corridor, which is a Key Focus Areas for economic growth, as outlined in the municipal Integrated Development Plan and Spatial Development Framework.

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled with overburden placed on waste rock dumps during mining operations. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal as a closure solution and an alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for rehabilitation of waste rock dumps concurrent with mining instead of post mining and backfilling.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement expenditure, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country including the loss of foreign exchange earnings.

Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:



SLR Consulting (South Africa) (Proprietary) Limited

Registered Address: Unit 7, Fourways Manor Office Park,
1 Macbeth Avenue, Fourways, 2191
Postal Address: PO Box 1596, Cramerville, 2060, South Africa

Reg. No: 2007/005517/07
Vat No: 4630242198

Directors: R Hounsom, F Fredericks, D Junak

Fourways Office: Physical Address: Unit 7 & 9, Fourways Manor Office Park, 1 Macbeth Avenue, Fourways
Postal Address: PO Box 1596, Cramerville, 2060 ☎ +27 11 467 0945 📠 +27 11 467 0978

Cape Town Office: Physical Address: Unit 39, Roeland Square, 30 Drury Lane, Cape Town
Postal Address: PO Box 10145, Caledon Square, 7905 ☎ +27 21 461 1118 📠 +27 21 461 1120

Somerset West Office: Unit D3, Building 5, Fairways Office Park, Niblick Way, Somerset West
☎ +27 21 851 3348

 slrconsulting.com

- Concurrent backfill (in-pit dumping) during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface, concurrent with mining operations;
- Future access to readily available water supply in a pit lake; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

It follows that the proposed closure land use objective is to create a sustainable closure land use which is a combination of natural habitat creation (aquatic and terrestrial) and availability of water for livestock with associated grazing potential.

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental assessment practitioners (EAP), has been appointed by Tshipi to manage the environmental authorisation processes.

In this regard, the Basic Assessment Report (BAR) for the proposed project is now available for public review. This document presents a summary of the findings for the BAR undertaken for the proposed project. In this regard the following sections have been extracted from the BAR report and included in the summary document:

- The executive summary – included in Appendix A of this document
- Summary of issues and concerns raised by Interested and Affected Parties (I&APs) – included in Appendix B of this document.

2. REVIEW OF BAR

In addition to the BAR summary that has been distributed to all I&APs that are registered on the public involvement database, full copies of the BAR are available for public review at the following venues:

- The Joe Morolong Local Municipality;
- The John Taolo Gaetsewe District Municipality;
- The Hotazel Public Library;
- The Kuruman Public Library;
- The Kathu Public Library; and
- The Black Rock Library.

The BAR is also available from the SLR website (at <https://slrconsulting.com/za/slr-documents/>). Alternatively, electronic copies of the BAR will be made available to I&APs on request.

The BAR will be distributed for a 30 day comment period from **20 August 2019 to 20 September 2019** in order to provide I&APs with an opportunity to comment on any aspect of the proposed project and the findings of the basic assessment process. All comments need to be submitted in writing to SLR via fax (011 467 0978) and/or email (nsmyth@slrconsulting.com). All received comments will be included in the final BAR which will be made available to the Department of Mineral Resources for decision making purposes.

If you have any questions please contact the undersigned.

Kind regards



Natasha

APPENDIX A: EXECUTIVE SUMMARY OF THE BAR FOR THE PROPOSED PROJECT

BACKGROUND OF CURRENT OPERATIONS

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) currently operates the Tshipi Borwa open pit manganese mine located on the farms Mamatwan 331 (mining right and surface use areas) and Moab 700 (surface use area), approximately 18 km south of Hotazel in the Joe Morolong Local Municipality and the John Taolo Gaetsewe District Municipality in the Northern Cape Province. Tshipi is also located within the Gamagara Development Corridor, which is a Key Focus Areas for economic growth, as outlined in the municipal Integrated Development Plan and Spatial Development Framework.

Tshipi currently holds the following authorisations:

- A mining right (NC/30/5/1/2/2/0206MR) issued by the Northern Cape Department of Mineral Resources (DMR);
- An Environmental Management Programme report (EMPr) approved by the Northern Cape DMR;
- An Environmental Authorisation (NC/30/5/1/2/2/206/000083 EM) issued by the Northern Cape DMR in January 2018, and accompanying EMPr by the Northern Cape DMR in January 2018;
- An Environmental Authorisation ((NC/30/5/1/2/2/206/000130 MR) issued by the Northern Cape DMR in July 2019 and accompanying EMPr; and
- An Integrated Water Use Licence (IWUL) (10/D41K/AGJ/1735) issued by the Northern Cape Department of Water and Sanitation (DWS).

PROJECT BACKGROUND

The approved EMPr, as well as Tshipi's subsequent EMPrs and approvals, commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled with overburden placed on waste rock dumps during mining operations. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal as a closure solution and an alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for rehabilitation of waste rock dumps concurrent with mining instead of post mining and backfilling.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement expenditure, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country including the loss of foreign exchange earnings.

Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill (in-pit dumping) during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface, concurrent with mining operations;
- Future access to readily available water supply in a pit lake; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

It follows that the proposed closure land use objective is to create a sustainable closure land use which is a combination of natural habitat creation (aquatic and terrestrial) and availability of water for livestock with associated grazing potential.

RATIONAL OF THE PROPOSED PROJECT

On 17 May 2019, the Minister of Environment, Forestry and Fisheries published the 2nd draft of the 'Proposed Regulations Pertaining to the Financial Provision for the Rehabilitation and Remediation of Environmental Damage caused by Reconnaissance, Prospecting, Exploration, Mining or Production Operations' (2nd Draft Financial Provision Regulations) for comment. The 2nd Draft Financial Provision Regulations seek to entirely replace the NEMA Financial Provisioning Regulations, published on 20 November 2015, as amended (Financial Provisioning Regulations, GNR 1147 of 2015).

The 2nd Draft Financial Provision Regulations focusses on facilitating environmentally sustainable end land uses. In this regard, the following applies:

- The 2nd Draft Financial Provision Regulations highlight that the purpose of setting aside a financial provision is to ensure that operations can achieved an approved sustainable end state at closure;
- Companies have the scope to define a credible sustainable end state in the final rehabilitation, decommissioning and mine closure plan. The sustainable end state must reflect local conditions, regulatory complexities, stakeholder expectations, environmental opportunities and technical solutions for the infrastructure and facilities to support the sustainable end state; and
- The mind shift from classic mine closure (returning the land to its pre-mining state) to focussing on a transitional economy promotes the potential for multiple alternative closure opportunities.

The proposed project offers an alternative closure and rehabilitation strategy to the approved current commitment to re-instate the environment to that of grazing and/or wilderness potential in order to align the Tshipi closure objectives with the sustainable end state focus of the 2nd Draft Financial Provision Regulations. It follows that the proposed closure land use objective is to create a sustainable closure land use which is a combination of natural habitat creation (aquatic and terrestrial) and availability of water for livestock with associated grazing potential.

SUMMARY OF AUTHORISATION REQUIREMENTS

DMR in terms of section 24 of NEMA must be applied for and obtained. The EIA Regulations being followed are Government Notice Regulation (GNR) 982 of 4 December 2014, as amended.

The listed activity triggers falls under GNR 983 Listing Notice 1, thereby triggering the need to undertake a basic assessment and compile and submit a Basic Assessment Report in support of the application for environmental authorisation in terms of regulation 19 of the EIA Regulations, 2014.

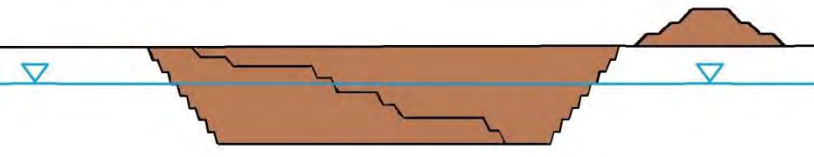
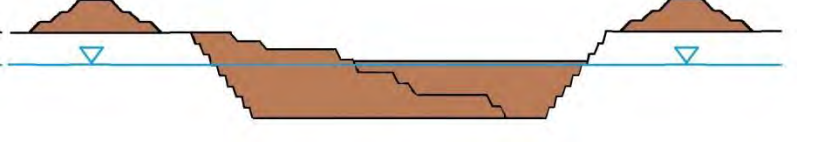
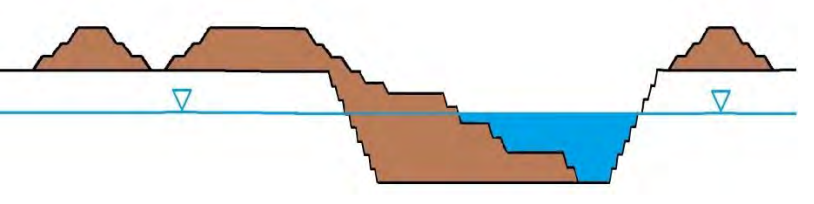
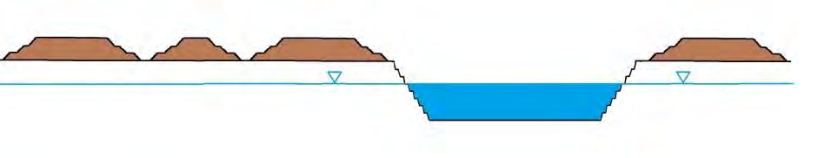
SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental assessment practitioners (EAP), has been appointed by Tshipi to manage the environmental authorisation processes.

ALTERNATIVES CONSIDERED

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is completely backfilled. Recent optimisation investigations indicate that when considering environmental, socio-economic, legal, commercial and technical, factors, completely backfilling the open pit is sub-optimal. Project alternatives that were considered included: complete backfill (option 1), partial backfill (option 2), concurrent backfill only (in-pit dumping) (option 3) and no backfill (option 4). The alternatives

analysis has indicated that **option 3 Concurrent Backfill Only** is the preferred option from an environmental, socio-economic, technical, legal and commercial perspective.

Table A: project alternatives that were considered

Options considered	Illustration	Detail
Complete backfill (option 1)		Backfill of the final pit void post mining to original ground level, before rehabilitation of the surface as per the current approved EMPr
Partial backfill (option 2)		Backfill of the final pit void post mining to a level just above the rebound water-table level, approximately 50m below original ground level, before rehabilitation of the surface.
Concurrent backfill only (in-pit dumping) (option 3)		Backfill of the pit void concurrent with mining only, also called in-pit dumping, which results in a partial void and associated pit lake which will be 'made safe' (profiled) before rehabilitation of the surface.
No backfill (option 4)		No backfill of the pit either concurrent with mining or post mining i.e. all waste rock to surface dumps. The pit side-walls and end-walls will only be 'made safe'. The entire pit becomes a pit lake.

IMPACTS AND MANAGEMENT ACTIONS

This section provides a summary of the assessment of the potential impacts of the project and provides measures to prevent and/or mitigate the impacts. The potential impacts associated with the proposed project can be categorised into those that have low, medium and/or high significance in the unmitigated scenario. All three categories of impacts require a measure of management actions which, if successfully implemented will reduce and or enhance the significance of the impacts. Cumulative impacts and latent impacts are also summarised in the table below. In addition to this, the table also provides a summary of the positive and negative impacts comparing the impact significance rating in both the unmitigated and mitigated scenarios for the current approved commitment (option 1) versus the proposed preferred closure option (option 3).

The table below provides a summary of the potential impacts in no particular order of importance.

TABLE B – POTENTIAL IMPACT SUMMARY

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
Geology (mineral resources)	Loss and sterilisation of mineral resources	<p>The approved EMPPr's (SLR, August 2017 and April 2019), commits Tshipi to completely backfilling the open pit at closure and as such will sterilise a deeper mineral resource located to the north of the current approved open pit because of the necessity (and associated cost) of establishment of a vertical shaft complex to access the resource that could otherwise be accessed from the high wall of the open pit. This issue is relevant to whomever in future applies to mine the underground resource. In terms of the proposed project, underground resources will be easily accessible and not sterilised.</p> <p>In addition, In the current approved scenario, after complete backfilling, access to selected waste rock resources will be difficult or not possible while in the scenario of the proposed project (concurrent backfill only) there is more opportunity to access to selected backfill for crushing, screening and sale as building material. Related management actions focus on efficient planning and execution of concurrent backfilling.</p> <p>This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). In this regard, this impact related to the difficulty of accessing mine residue resources primarily associated with waste rock backfilled into the open pit during complete backfilling and to a lesser degree from remaining surface residue facilities. It must be noted that at the time of completing the previous assessment, the feasibility of accessing underground resources in the future had not been contemplated and was therefore not included in the previous assessment. The proposed project therefore alters the approved unmitigated and mitigated impact ratings.</p>	High	Low	Medium and positive	High and positive
Topography	Safety to third	Hazardous infrastructure and excavations include all structures into or	High	Low	High	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
	party and animals	<p>off which third parties (persons) and animals (livestock and wild animals) can fall and be harmed. The proposed project will present final rehabilitated areas that are considered hazardous (waste rock dumps) and a partially open pit with a pit lake.). In addition to this, the proposed project allows for the early rehabilitation of waste rock dumps that have reached final form concurrent with mining activities. Related management actions include general site rehabilitation, early rehabilitation of waste rock dumps, making the pit safe and access control.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPr (SLR, August 2017). The proposed project does not alter the approved impact significance rating.</p>				
Soil and land capability	Loss of soil resources and land capability through contamination	<p>Soil is a valuable resource that supports a variety of ecological functions. Soil is the key to re-establishing post closure land capability. The loss of soil resources has a direct impact on the potential loss of the natural capability of the land. Decommissioning pollution sources include spillages of waste material, dirty water, fuel, lubricants and leaks from vehicles and equipment and run-off from waste rock dumps. Post closure infrastructure includes waste rock dumps remaining on surface that may have the potential to contaminate soil through long term run-off. Related management actions focus on controlling decommissioning activities as per the approved EMPr (pollution prevention) and rehabilitation.</p> <p>No cumulative impact or additional latent impacts have been identified.</p>	High	Low	High	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		This impact was assessed as part of the approved EMPr's (SLR, August 2017 and April 2019). The proposed project does not alter the approved impact rating.				
	Loss of soil resources and land capability through physical disturbance	<p>Soil is a valuable resource that supports a variety of ecological functions. Soil is the key to re-establishing post closure land capability. The loss of soil resources has a direct impact on the potential loss of the natural capability of the land. Decommissioning activities and post closure infrastructure such as waste rock dumps remaining on surface have the potential to disturb soils and related land capability through removal, compaction and/or erosion, particularly in the unmitigated scenario. In the case of erosion, the soils will be lost to the area of disturbance. In the case of compaction, the soils functionality will firstly be compromised through a lack of rooting ability and aeration, and secondly the compacted soils are likely to erode because with less inherent functionality there will be little chance for the establishment of vegetation and other matters that naturally protects the soils from erosion. Related management actions focus on controlling decommissioning activities as per the approved EMPr (soil conservation), rehabilitation and post closure monitoring.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPr's (SLR, August 2017 and April 2019). The proposed project does not alter the approved impact rating.</p>	High	Low	High	Low
Biodiversity	Physical destruction of biodiversity	Areas of high ecological sensitivity are functioning biodiversity areas with species diversity and associated intrinsic value. In addition, some of these areas host protected species (Grey Camel Thorn and Camel Thorn). The linking areas have value because of the role they play in	High	Medium	High	High and positive

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>allowing the migration or movement of flora and fauna between the areas which is a key function for the broader ecosystem. The transformation of land for any purpose, including mining and associated activities, increases the destruction of the site specific biodiversity, the fragmentation of habitats, reduces its intrinsic functionality and reduces the linkage role that undeveloped land fulfils between different areas of biodiversity importance. Decommissioning and post closure activities that result in exposed and un-revegetated areas, un-rehabilitated waste rock dumps and an un-profiled open pit in the unmitigated scenario has the potential to physically destroy biodiversity. With rehabilitation and access to a functional pit lake, aquatic habitats can be created and terrestrial habitats can be enhanced. Related management actions focus on controlling decommissioning activities as per the approved EMPr (limiting vegetation clearing, biodiversity action plan, obtaining tree permits), rehabilitation, pit lake design to support sustainable aquatic systems and post closure terrestrial ecology and post closure monitoring.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPr's (SLR, August 2017 and April 2019). With mitigation the significance rating changes with a change to the closure commitment because with access to a functional pit lake, aquatic habitats can be created and terrestrial habitats can be enhanced. The proposed project therefore alters the approved mitigated impact rating.</p>				
	General disturbance of biodiversity	In the absence of rehabilitation, decommissioning activities can generally disturb biodiversity through the presence of exposed areas, contaminated soil, alien invasive species an un-profiled pit and anthropogenic activities which in turn effects the success of	High	Medium	High	Medium and positive

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>rehabilitation. The closure phase may also present contaminated water within the pit lake, that if consumed may be harmful to vertebrates and invertebrates without mitigation. In terms of the proposed project, with successful rehabilitation and revegetation, a suitable aquatic habitat (inclusive of suitable water quality within the pit lake) and terrestrial habitat will be created. This will promote the natural relocation of faunal species and reintroduction of floral species into the area, thereby restoring and enhancing biodiversity complexity, diversity, community sensitivity and overall community stability. Related management actions focus on controlling decommissioning activities as per the approved EMPr (rehabilitation, alien and invasive species programme, zero tolerance animal killing policy, veld fire prevention, speed control and pollution preventing) and monitoring.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPr's (SLR, August 2017 and April 2019). In terms of the proposed project, with access to a functional pit lake, suitable aquatic and terrestrial habitats can be created and enhanced that in turn will encourage the natural relocation of faunal species and reintroduction of floral species into the area. The proposed project therefore alters the approved mitigated impact rating.</p>				
Surface	Alternation of natural drainage patter	<p>During the closure phase, stormwater management infrastructure to contain dirty water as required by legislation will be required around the perimeter of the waste rock dumps. In this regard the collection of rainfall and runoff will be via toe paddocks. The toe paddocks will remain until such time as the waste rock dumps have been rehabilitated successfully, after which they can be removed. Further to this, natural surface water run-off and rainfall will also be collected in the partially open pit. The collected rain-fall and run-off will therefore be lost to the</p>	Medium	Low	Medium to Low	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>catchment and can result in the alteration of drainage patterns in a similar manner to what is currently occurring on site and will perpetuate during the decommissioning phase. Related management actions focus on rehabilitation to restore natural drainage patterns where possible.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). In this regard, with rehabilitation at closure natural drainage patterns would be restored. In terms of the proposed project, the alteration of natural drainage patterns for the partially open pit cannot be mitigated; however it is important to note that the collection of rainfall and run-off in the partially open pit does contribute to the development of the pit lake which can be used for alternative uses. The end ratings remain similar.</p>				
	Contamination of surface water resources	<p>Decommissioning activities that have the potential to pollution surface water resources include sedimentation from erosion, spillages (waste material dirty water, fuel, lubricants and leaks), contaminated soil and run-off from waste rock dumps. Post closure activities that have the potential to pollute surface water resources include contaminated pit lake water, sedimentation from erosion and run-off from waste rock dumps. It is unlikely that contaminants will reach the nearest water course (Vlermuisleegte), given that it is located two km west of the mine and is ephemeral in nature and is therefore associated with long periods of no flow. In terms of the pit lake, in the unmitigated scenario, the water can become contaminated and could be used for grazing purposes over time. Management actions focus on pollution prevention, rehabilitation, monitoring, establishment of floating wetlands (required to treat pit lake water to meeting DWS livestock watering objectives) and compensation for any water related loss.</p>	Medium	Low	High	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>A potential latent impact could be associated with long terms deterioration of pit lake water quality subject to the success of the ongoing floating wetland treatment. If this latent impact manifests and cannot be mitigated through treatment adaptations then the use of/access to the pit lake will have to be reconsidered. The associated default management measures will be to fence and/or berm off access to the pit lake. No cumulative impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). The proposed project introduces issues associated with the pit lake which changes the approved impact rating in the unmitigated scenario. There is no difference in the impact ratings in the mitigated scenario.</p>				
Groundwater	Lowering of groundwater levels	<p>Prior to mining the natural depth of the water in surrounding boreholes ranged from 25 to 55 m below ground level. Groundwater level monitoring data currently shows water depths ranging from 41 to 75 m below ground level. At decommissioning (when mining stops), although dewatering activities will cease, the modelled cone of drawdown developed due to dewatering is predicted to be at a maximum extent of 5.5 km to the east and 8.3 km to the west of the Tshipi Borwa Mine. Third parties within the simulated cone of depression may therefore experience a drop in water levels. When mining and dewatering cease, groundwater levels will start to rebound and the water level in the pit will increase. Over time, as the pit lake level rises inflows will diminish until a steady state level is reached. Due to evaporative loses and pit geometry; the partially filled pit will continue to be a hydraulic sink in perpetuity because the steady state pit lake level will remain approximately 6m below the natural groundwater level which is approximately 35 below ground level. The associated cone of depression hydraulic gradient will be significantly reduced. It follows</p>	Insignificant			

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>that groundwater levels at off-site third party boreholes are predicted to rebound to natural groundwater level. The impact is therefore considered to be insignificant. Related management actions focus on monitoring groundwater levels and compensation for loss of water supply.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was not assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019) given that it was assumed groundwater levels in off-site third party boreholes rebounded to natural ground level at closure. The proposed project does not alter the approved impact rating.</p>				
	Contamination of groundwater resources	<p>The closure phase will present final land forms such as waste rock dumps remaining on surface and the waste rock backfilled into the open pit that may have the potential to pollute water resources through long term seepage and/or run-off. As part of the proposed project, the partially backfilled pit will act as a hydraulic sink and as such the extent of the pollution plume will reduce because the draw down cone will draw some of the pollution plume into the pit. No impact on any off-site third party boreholes is predicted. Related management actions focus on monitoring groundwater quality and compensation for loss of water supply.</p> <p>No additional latent impacts have been identified. Modelling results includes contributions from off-site sources in the context of current water quality. The predicted modelled results therefore are cumulative in nature.</p>	Low	Low	Low	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). The proposed project does not change the approved impact rating, however the proposed project minimises the extent of the pollution plume because of the hydraulic sink associated with the partially backfilled pit.				
Air	Air pollution	<p>The main contaminants associated with the proposed project include: inhalable particulate matter less than 10 microns in size (PM10 and PM2.5), larger total suspended particulates (TSP) that relate to dust fallout, Mn concentration (within waste rock dumps), and gaseous emissions mainly from vehicles and generators. At closure, the main source of windblown dust will be from the exposed waste rock dump surfaces. These contaminants have the potential to contribute to the pollution of air. It is however important to note that modelling results indicated that exceedances of the PM10, PM2.5, dust fallout and Mn concentrations are unlikely to be experienced at sensitive receptors. Related management actions focus on monitoring and dust suppression (particularly during the decommissioning phase).</p> <p>No additional latent impacts have been identified. Modelling results includes contributions from off-site sources in the context of current air quality. The predicted modelled results therefore are cumulative in nature.</p> <p>This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). The impact was rating remained high for Mn concentrations even with mitigation as modelling predicted that exceedances of the World Health Organisation (WHO) guidelines were expected at some residence near the mine. It is important to note that since the compilation of the previous EIA/EMPPrs, the Mn content concentrations within the waste rock dumps at Tshipi have been</p>	High	Medium (remained High for Mn)	Low	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		sampled. The new information demonstrates that there is less Mn content than previously assumed. It follows that for the proposed project, the approved mitigated impact rating has changed.				
Noise	Increase in disturbing noise levels	<p>Noise pollution can create nuisance that will have different impacts on different receptors because some are very sensitive to noise and others are not. Potential human noise receptors include the isolated residences and farmhouses within 2 km radius of the Tshipi Borwa Mine. Based on the prevailing wind field, disturbing noise levels are expected to be more notable to the east and south during the day and to the north and north-northwest during the night. Post closure activities that may generate disturbing noise levels include intermitted vehicle and materials handling activities associated with post closure monitoring, maintenance and aftercare. Existing operational baseline noise at the Tshipi Borwa mine is below the IFC guideline for residential areas, and as part of on-site monitoring, no audible noise from the mining operations were noted, only noise from cicadas (insects). Related management actions focus on noise attenuation, equipment and vehicle maintenance and limiting traffic to day time hours.</p> <p>No cumulative impact or additional latent impacts have been identified.</p> <p>This impact was not assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019) as noise disturbances and noise nuisance activities were limited to all phases prior to closure. The proposed project presents addition monitoring, aftercare and maintenance/adjustment requirements (creating of aquatic habitats) and as such alters the impact rating.</p>	Not applicable	Not applicable	Low	Low
Visual	Negative visual views	The visual landscape is determined by considering: landscape character, sense of place, scenic quality, sensitivity of the visual resource and	High	Low	High	Low

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>sensitive views. In this regard, the visual landscape within the Tshipi Borwa Mine area has been transformed due to the presence of approved mining infrastructure and activities. In general, the visual landscape of the area surrounding the Tshipi Borwa Mine is characterised by flat open areas associated with semi-arid vegetation and an ephemeral river (Vlermuisleegte River), that has been influenced by the presence of existing mining operations, roads, powerline infrastructure and isolated farmsteads. The proposed project will present visual intrusions (waste rock dumps remaining on surface and a partially open pit) post closure that may be perceived negatively by sensitive receptors, particularly in the unmitigated scenario were rehabilitation activities during decommissioning have not been implemented. It is however important to note that Tshipi is located adjacent to existing mining operations (UMK and Mamatwan), which has resulted in a deteriorated the natural landscape. Related management actions focus on rehabilitation and in particular early rehabilitation of waste rock dumps as part of current mining operations.</p> <p>No latent impacts have been identified. Assessing impacts in the context of surrounding mines provides a cumulative impact assessment perspective.</p> <p>This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). The proposed project does not alter the impact rating; however the state of rehabilitation of closure will be improved in the mitigated scenario through the early rehabilitation of the waste rock dumps.</p>				
Traffic	Road disturbance and traffic safety	The proposed project will not generate additional traffic and as such project-related road disturbance and traffic safety impacts are not expected to occur.	Insignificant			

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		No cumulative impact or additional latent impacts have been identified.				
Heritage/cultural and palaeontological resources	Loss of heritage/cultural and palaeontological resources	<p>No heritage resources occur at the Tshipi Borwa Mine. In addition, there is a low possibility of palaeontological resources occurring in the area. However, related management actions focus on the steps required in the unlikely event of a chance find.</p> <p>No cumulative impact or additional latent impacts have been identified.</p>	Insignificant			
Socio-economic	Inward migration	<p>Mining operations tend to bring with them an expectation of employment in all phases prior to closure. This expectation can lead to the influx of job seekers to an area which in turn increases pressure on existing communities, housing, basic service delivery and raises concerns around safety and security. Impacts associated with inward migration were assessed as part of the approved EMPr's (SLR, August 2017 and April 2019). While the rehabilitation plan and closure plan will have been adjusted in order to cater for the proposed project and a change to the closure objective, the proposed project will not present any additional job opportunities as Tshipi will make use of existing contractors and workers as part of rehabilitation activities. It follows that the potential for an increased social risks is considered to be negligible for the proposed project. Related management actions focus on implementing the approved EMPr commitments relating to recruitment, communication and health awareness training.</p> <p>No cumulative impact or additional latent impacts have been identified.</p>	Insignificant			
	Economic impact	Mining has a positive net economic impact on the national, local and regional economy. Direct benefits are derived from wages, taxes and profits. Indirect benefits are derived through the procurement of goods and services, and the increased spending power of employees. In the	Medium to high and positive	Medium to high and positive	High and positive	High and positive

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>current approved scenario, the open pit is completely backfilled and the land is reinstated to that of grazing/wilderness. From a net economic perspective, the economy will lose an estimated value of more than R 21.4 billion on a national regional and local level because the completely backfilled pit will prohibit the access to future underground resources. In terms of the proposed project, the national, regional and local economies will gain R21.5 billion because the partially backfilled pit allows easy access to underground resources. Related management actions focus on efficient planning and execution of concurrent backfilling only (in-pit dumping)</p> <p>No latent impacts have been identified.</p> <p>This impact was assessed as part of the approved EMPPr's (SLR, August 2017 and April 2019). It must be noted that at the time of completing the previous assessment, the feasibility of accessing underground resources in the future had not been contemplated and was therefore not included in the previous assessment and as such the impact rating changes.</p>				
Land use	Change in land use	<p>Mining-related activities have the potential to affect land uses both within the mine area and in the surrounding areas. The key related potential environmental impacts include soil, land capability, biodiversity, water, air, noise, visual, and economic impacts. The approved EMPPr's (SLR, August 2017 and April 2019), requires that the surface is reinstated to pre-mining state of wilderness and grazing and requires that the open pit is backfilled at closure. The proposed project is proposing a change to this strategy, where the closure land use objective is to create a sustainable closure land use which is a combination of natural habitat creation (aquatic and terrestrial) and availability of water for livestock with associated grazing potential.</p>	High	Low	High	High and positive

Aspect	Potential impact	Summary of impact discussion and reference to mitigation measures for the proposed project	Impact significance (approved EMPr) – option 1		Impact significance (proposed project) – option 3	
			Unmitigated	Mitigated	Unmitigated	Mitigated
		<p>Related management measures focus on rehabilitation.</p> <p>No latent impacts have been identified. Depending on the nature and scale of surrounding mining activities at the post closure stage, this could be cumulative impact category.</p> <p>This impact was assessed as part of the approved EMPr's (SLR, August 2017 April 2019). The proposed project presents a change in the closure strategy and creates and enhances alternative land uses (terrestrial and aquatic habitats) and provides a water resource for livestock watering with associated grazing potential. The proposed project therefore alters the approved mitigated impact rating.</p>				

IMPACT STATEMENT

The assessment of the proposed project presents the potential for significant negative impacts to occur (in the unmitigated scenario in particular) on the biophysical and socio-economic environments both on the project sites and in the surrounding area. With management actions, these potential impacts can be prevented or reduced or enhanced to acceptable levels. It follows that provided the EMPr is effectively implemented there is no biophysical, social or economic reason why the project should not proceed.

STAKEHOLDER ENGAGEMENT PROCESS

The stakeholder engagement process commenced prior to the submission of the BAR (Basic Assessment Report) and has continued throughout the environmental assessment process. As part of this process, commenting authorities and interested and affected parties (IAPs) were given the opportunity to attend a public meeting, submit questions and comments to the project team, and review the background information document and now the BAR. All comments submitted to date by the commenting authorities and IAPs have been included and addressed in this BAR. Further comments arising during the review of the BAR were handled in a similar manner.

This BAR will be distributed for a 30 day comment period from **20 August 2019 to 20 September 2019** in order to provide I&APs with an opportunity to comment on any aspect of the proposed project and the findings of the Basic Assessment process. Copies of the full report will be made available on the SLR website (at <https://slrconsulting.com/za/slr-documents/>) and at the Joe Morolong Local Municipality, John Taolo Gaetsewe District Municipality, Hotazel Public Library and Kathu Public Library, Black Rock Library. Electronic copies (compact disk) of the report are available from SLR, at the contact details provided below.

All comments received during the review process will be addressed in the BAR.

SLR Consulting (Africa) (Pty) Ltd

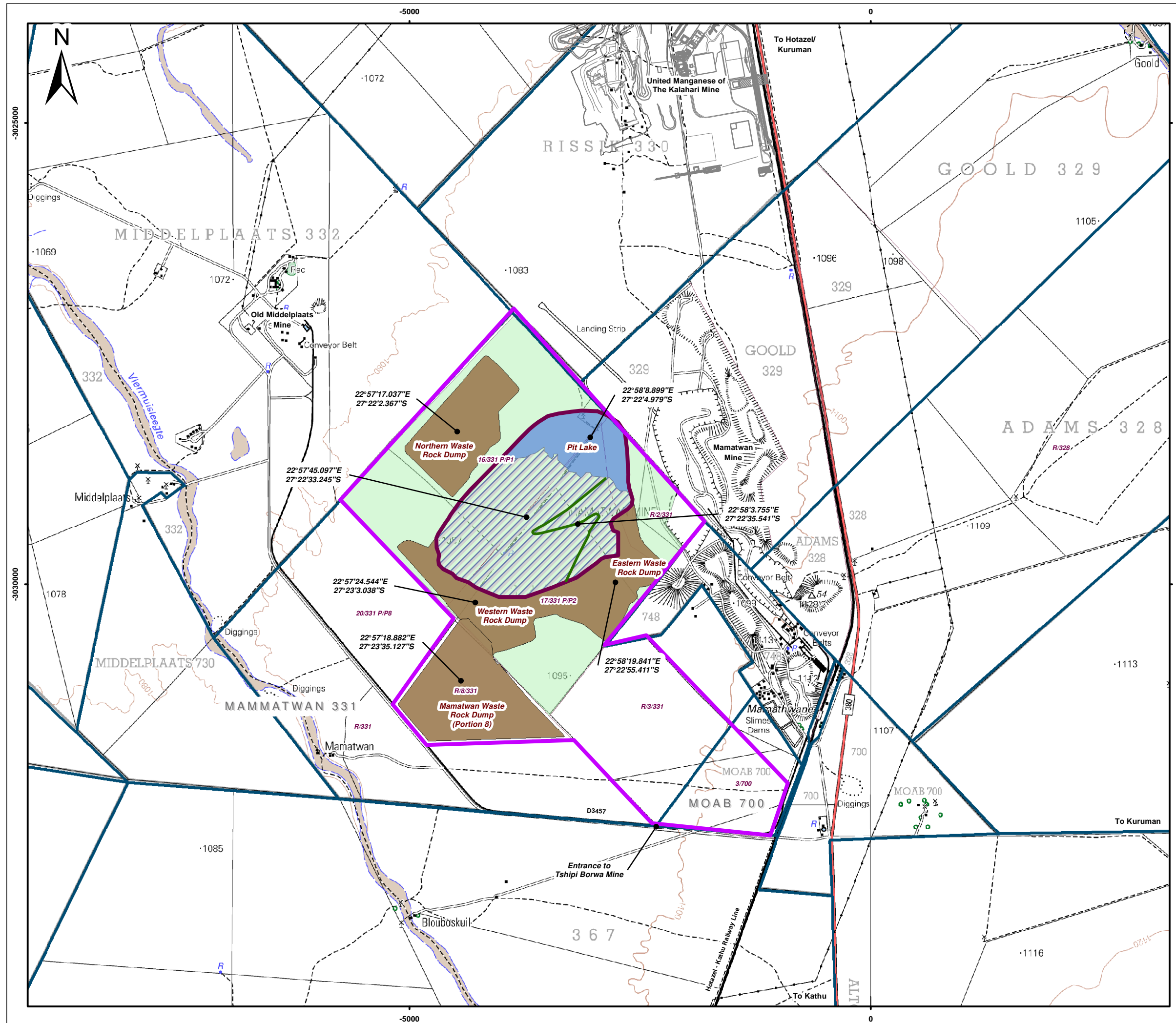
Attention: Natasha Smyth

PO Box 1596, Cramerview 2060 (if using post please call SLR to notify us of your submission)

Tel: (011) 467 0945

Fax: (011) 467 0978

E-mail: nsmyth@slrconsulting.com



- Legend**
- Tshipi Surface Use Area
 - Tshipi Mining Right Area
 - Open Pit
 - Concurrent In-Pit Dumping
 - Waste Rock Dumps
 - Access Road
 - Main Roads
 - Power Line
 - Rivers and Streams
 - 20m Contour Lines
 - Farm Boundaries
 - Farm Portions

0 500 1 000 Meters
 Scale: 1:40 000 @ A3
 Projection: Transverse Mercator
 Datum: WGS1984, Lo23

Tshipi é Ntle Manganese Mining (Pty) Ltd

Figure 1
 Local Setting

SLR
 SLR Consulting (Africa) (Pty) Ltd
 P O Box 1596, Cramerville, 2060, South Africa
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APPENDIX B: SUMMARY OF ISSUES RAISED (SECTION 7.3 OF THE BAR)

Interested and affected party	Date comment received	Issues raised	Response provided
Regulatory authority			
Department of Mineral Resources (DMR)			
Ntsundeni Ravhugoni	Comments raised at the pre-application meeting with the DMR on 02 May 2019	Can the open pit be backfilled after the underground mining is completed? This approach can be considered as an alternative to changing the backfill commitment.	<p>Practically the final void could be backfilled after the deeper resource is mined out however;</p> <ul style="list-style-type: none"> • Firstly, when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal as a closure solution and an alternative closure and rehabilitation strategy offers; opportunities for enhanced biodiversity habitats and access to surface water; • Secondly, this would imply that the surface waste rock dumps would remain as (un-rehabilitated) temporary dumps until after closure of the underground mine, possibly as long as 70 years from now whereas with concurrent backfill only, rehabilitation of surface waste rock dumps can commence almost immediately; and <p>Lastly, the underground mine is marginal and if the attributable closure liability is included in the underground mine business plan then the business case may no longer be attractive. i.e. the deeper (underground) resource will be sterilised.</p>
		As part of the alternative investigation, please also comment on the level of Tshipi's responsibility for the four closure options. Our department is of the opinion that with complete backfill, Tshipi's overall responsibility will be less than a closure option where biodiversity habitats are created that need to be maintained and monitored. As an overall comment, we will wait for the final Environmental Impact Assessment (EIA) and EMPr for the details around the specialist findings of the alternative investigation.	<p>A discussion on the positive and negative impacts of each of the alternatives considered is included in the BAR. In this regard, it is important to note that there will be a closure phase monitoring and aftercare obligation in both the complete backfill (option 1) and concurrent backfill only (in-pit dumping) (being the preferred option) (option 3) scenarios.</p> <p>In terms of completely backfilling, the long term focus would be groundwater monitoring with shorter term monitoring and aftercare plan aspects focussed on groundwater levels, vegetation/ecosystem establishment, and erosion prevention. In terms of concurrent (in-pit dumping), the long term focus would be on the pit lake where field implementation and monitoring is required to determine how successful the floating wetlands will be as a semi passive treatment solution. Moreover, ongoing monitoring, wetland maintenance/replacement, and establishment of shallow ecosystems may be required in the longer term to maintain the pit lake quality for livestock and ecology use. Alternatively, if the water quality fails at some point then alternative treatment technologies may need to be considered or the use of the pit lake and access thereto may have to change. The shorter term monitoring and aftercare plan aspects focussed on groundwater levels, vegetation/ecosystem establishment, and erosion prevention.</p>

Interested and affected party	Date comment received	Issues raised	Response provided
Ntsundeni Ravhugoni	Comments raised at the pre-application meeting with the DMR on 02 May 2019		<p>Taking the above into consideration, post closure monitoring and aftercare maintenance is more extensive (more aspects that require monitoring) and the duration of the post closure obligations increases from the preferred concurrent (in-pit dumping) alternative when compared to completely backfilling.</p> <p>It is however important to note that the level of responsibility is only one aspect that was considered in the alternatives analysis as outlined in Section 7.5 of the BAR. In this regard when all environmental, social, technical (inclusive of level of responsibility), legal and commercial factors are considered as a whole, the preferred option is concurrent (in-pit dumping). Further to this, not proceeding with the project means that the pit will be completely backfilled and rehabilitated to an end state of grazing/wilderness and as such the economic spin-offs and biodiversity enhancements will not be realised.</p>
Commenting authorities			
Department of Water and Sanitation			
Fhatuwani Magonono	Comments raised at a focussed meeting held on 21 June 2019	<p>An application has recently been submitted to our department for amendments to the existing Integrated Water Use Licence Application for Tshipi. Will the application associated with this proposed project form part of the amendment that is currently with the department for processing, or will a separate application be made?</p> <p>The Department of Water and Sanitation will need to authorise the use of waste rock to backfill the open pit in terms of Section 21(g) of the National Water Act (No. 36 of 1998).</p> <p>Is the backfilling authorised by the Department of Mineral Resources?</p> <p>Why create a pit lake? Why don't you completely rehabilitate the whole pit?</p>	<p>As part of the proposed project, the waste rock dumps that will remain on surface and backfilling the open pit are water uses in terms of Section 21(g) of the NWA for the disposal of waste in a manner that may detrimentally impact on water resources. These water uses either form part of the existing WUL or are incorporated into the IWUL amendment application that is currently with your department for processing. Even though these facilities/activities are associated with the proposed project, these water uses form part of the current mining operations which require authorisation. It follows, that there is no specific requirement for Tshipi to obtain a water use licence from the DWS in terms of the NWA for the proposed project. After closure the relevant land user would have to review the need for a water use licence depending on the related future use of the water resource. This may include an abstraction licence to use water from the pit lake.</p> <p>Tshipi is currently required to completely backfill their open pit in accordance with their approved EMP's (SLR, August 2017 and SLR, April 2019). Prior to the commencement of the proposed project, authorisation will be required from the DMR to change the approved backfill commitment to concurrent backfilling only (in-pit dumping).</p> <p>As part of the proposed project, the aim is to create a sustainable closure land use which is a combination of natural habitats creation (aquatic and terrestrial) and livestock watering with</p>

Interested and affected party	Date comment received	Issues raised	Response provided
Fhatuwani Magonono	Comments raised at a focussed meeting held on 21 June 2019	What will be the use of that water?	<p>associated grazing potential. This can be achieved through access to water within the pit lake. If the pit is completely backfilled, it will not be possible to create a pit lake and the biodiversity enhancements will not be realised.</p> <p>It is important to note, that additional concepts could be considered at some point as potential future additional land uses that may require the use of water within the pit lake. With reference to Section 3.2.9 of the BAR, these include aggregate crushing and screening, aquaponics and intensive grazing. These additional land uses are not specifically assessed as part of the proposed project as these are potential land uses that can be considered.</p>
		The pit lake water will be contaminated because of the waste rock dumps? It will end up infiltrating to the groundwater.	<p>As part of the proposed project, independent hydrologist, geohydrologist and geochemists were appointed to understand the impacts associated with the development of a pit lake. In this regard, specialist investigations have shown that without passive treatment water quality within the pit lake will be suitable for livestock watering purposes for up to 100 years but thereafter some form of floating wetland treatment will be required. Specialists have therefore recommended the use of floating wetlands for the passive treatment of water quality within the pit lake. The predicted modelling results of water quality of the pit lake with the installation of floating wetlands indicate that the water quality is acceptable for livestock watering and the creation of an aquatic habitat for a minimum of 200 years (the modelled period). It is possible for similar water quality to be achieved beyond the modelled period of 200 years and field trials supplemented with additional modelling are recommended for ongoing design refinement.</p> <p>In addition to the above, the impact associated with groundwater contamination was assessed as part of the proposed project. In this regard the pit lake will act as a sink because the pit lake level will settle below the relevant groundwater level. This means that groundwater water will flow towards the pit lake and not from the pit lake outwards. Predicated modelling results indicated that no impacts on any off-site third party boreholes are expected.</p>
		Please ensure that post closure monitoring is undertaken?	A post closure monitoring programme has been developed for the proposed project and is outlined in Section 28 of the BAR.
		Will the pit spill?	The pit lake level will settle approximately 35m below ground level. It follows that there is no risk of a pit spill.
		Did you conduct a waste classification study?	Waste assessments have been conducted for the Tshipi Borwa Mine as part of previous projects. In this regard, waste assessments were undertaken in accordance with Regulation 5 of GNR 632 of the NEM:WA, which states that waste rock stockpiles need to be classified

Interested and affected party	Date comment received	Issues raised	Response provided
Fhatuwani Magonono	Comments raised at a focussed meeting held on 21 June 2019	<p>The most critical part in terms of this application will be the geohydrological report, which must cover the modelling of the plume and the monitoring boreholes (post closure monitoring) both near and downstream.</p>	<p>taking into account Regulation 8 of GNR 634 of 2013, which references the following associated National Norms and Standards:</p> <ul style="list-style-type: none"> • The National Norms and Standards for the assessment of waste for landfill disposal (GNR 635 of 2013); and • The National Norms and Standards for disposal of waste to landfill (GNR 636 of 2013). <p>A waste assessment was undertaken by Golder Associates (Golder, 2016) for waste rock generated at the Tshipi Borwa Mine. The preliminary results of the waste assessment indicate that waste rock is classified as a Type 1 waste, which requires a Class A liner, which consists of a compacted clay liner, leachate detection, geotextile membranes and geotextile filters. In June 2016, the DWS accepted a proposal by the Chamber of Mines of South Africa to follow a risk based approach on a case-by-case basis to allow for representations on alternative barrier systems for Mine Residue Deposits and Stockpiles (29 June 2016).</p> <p>Golder recommended, via a formal motivation letter to the DWS, that a Class D liner (stripping topsoil and base preparation) is considered appropriate for the proposed waste rock dumps at the Tshipi Borwa Mine for the following reasons:</p> <ul style="list-style-type: none"> • A Class A liner is impractical for a waste rock dump on the basis of geotechnical properties given that the liner is likely to fail; • The leachable concentrations of all the constituents are below the LCT0 limit, indicating a low seepage risk; • The waste rock material will be dry and does not contain waste water; and • The waste rock material is non-hazardous and not acid generating. <p>Groundwater modelling has been undertaken for Tshipi. This modelling makes provision for a worse case theoretical scenario which includes a completely backfilled open pit with all waste rock dumps remaining on surface. This allows for multiple pollution sources and re-establishment of close to normal groundwater flow. In reality, the proposed closure option will include the partially backfilled pit acting as a hydraulic sink with a draw down cone toward the pit lake in perpetuity. The reason for using the conservative theoretical modelling scenario is the precautionary principle which is relevant because of the importance of understanding groundwater risk in this particular arid region. Details pertaining to the groundwater model are included in the Pit lake report included in Appendix H of the BAR. A detailed discussion of the groundwater impacts and contamination plume modelling results are provided in Appendix E of the BAR.</p>

Interested and affected party	Date comment received	Issues raised	Response provided
Fhatuwani Magonono	Comments raised at a focussed meeting held on 21 June 2019		A post closure monitoring programme has been developed for the proposed project and is outlined in Section 28 of the BAR.
Department of Environmental and Nature Conservation and Department of Environment, Forestry and Fisheries			
Jacoline Mans- DAFF	Comment raised at focus meeting held on 27 June 2019	Will the water from the pit-lake be clean, will it not be contaminated?	As part of the proposed project, independent hydrologist, geohydrologist and geochemists were appointed to understand the impacts associated with the development of a pit lake. In this regard, specialist investigations have shown that without passive treatment water quality within the pit lake will be suitable for livestock watering purposes for up to 100 years for up to 100 years but thereafter some form of floating wetland treatment will be required. Specialists have therefore recommended the use of floating wetlands for the passive treatment of water quality within the pit lake. The predicted modelling results of water quality of the pit lake with the installation of floating wetlands indicate that the water quality is acceptable for livestock watering and the creation of an aquatic habitat for a minimum of 200 years (the modelled period). It is possible for similar water quality to be achieved beyond the modelled period of 200 years and field trials supplemented with additional modelling are recommended for ongoing design refinement.
		In terms of protected trees and plants, how will the footprint differ from what's currently authorised? Will your dumps not increase in terms of surface area? Will they not have an impact on currently undisturbed areas?	The rehabilitation of the waste rock dumps will include shaping to ensure that the areas are free draining and the sides will be sloped as required to allow for the optimal re-establishment of vegetation. It is possible that as part of sloping the waste rock dumps, that some current undisturbed areas may be influenced. It is important to note that Tshipi is still committed to implement management actions as outlined in the approved EMPr's (SLR, August 2017 and April 2019). It follows that if any protected trees or plant species need to be removed as part of rehabilitating the waste rock dumps, the necessary tree and/or plant removal permits will be obtained from DAFF and/or DENC. Moreover, refer to Section 3.2.7.2 of the BAR for the revegetation plan which aims to re-establish key habitats and related trees.
		So your current waste rock dumps are not rehabilitated?	The current approved EMPr requires that Tshipi backfills the open pit completely. In this scenario, given that waste rock would be backfilled into the open pit, no waste rock dumps that are currently on surface are therefore rehabilitated. Once the waste rock is backfilled into the open pit, surface rehabilitation would commence. As part of the proposed project, some waste rock will remain on surface in perpetuity. It follows that the proposed project will allow for the earlier rehabilitation of waste rock dumps

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Jacoline Mans- DAFF	Comment raised at focus meeting held on 27 June 2019		as part of on-going operations, which will improve the state of rehabilitation at closure.
		In terms of alternative land use on the permanent dumps, is it not possible to invite solar plant companies to place their solar panels on the permanent dumps instead of disturbing the natural veld next to the mine?	As part of the proposed project, the aim is to create a sustainable closure land use which is a combination of natural habitats creation (aquatic and terrestrial) and livestock watering with associated grazing potential. Additional concepts could be considered at some point as potential future additional land uses. With reference to Section 3.2.9.4 of the BAR, provision has been made for the consideration of establishing solar plants on the top of existing waste rock dumps.
		In terms of your existing Environmental Authorisation, was there not something about offsets that Tshipi had to do? Is a biodiversity offset not already a condition in the Environmental Authorisation?	The existing environmental authorisations held by Tshipi do not specifically indicate that a biodiversity offset is required. The approved EMPs (SLR, August 2017 and April 2019) however indicated that Tshipi is committed to implement an offset when required by DAFF.
		But there's a sign that reads "Tshipi biodiversity offset area", I'm not sure whether it's still there?	Tshipi is aware of the sign that you are referring to. This sign should not have been erected and plans are being made to remove the sign. No offset area has been identified yet.
Samantha De la Fontaine- DENC		Is it possible for you to send DAFF and DENC the offset investigation report?	Tshipi will ensure that this is done.
Jacoline Mans- DAFF		Please send DAFF and DENC an electronic copy (CD) of the BAR?	This will be done.
South African Heritage Resource Agency			
Natasha Higgitt- SAHRA	Comments received from SAHRIS website on 30 July 2019	As the proposed development is undergoing an EA Application process in terms of the National Environmental Management Act, 107 of 1998 (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations for activities that trigger the Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA)(As amended), it is incumbent on the developer to ensure that a Heritage Impact Assessment (HIA) is done as per section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). This usually includes an archaeological	As part of the proposed project, a heritage specialist was consulted. In this regard, the specialist confirmed that no heritage resources are present at the Tshipi Borwa mine and the proposed project will not impact heritage resources. In terms of palaeontological resources, the specialist confirmed that there is a low possibility of palaeontological resources occurring in the project area. It is however important to note that in the event on any chance finds, the SAHRA will be notified and where necessary permits need to be obtained prior to disturbance.

Interested and affected party	Date comment received	Issues raised	Response provided
		<p>component, palaeontological component and any other applicable heritage components. The HIA must be conducted as part of the EA Application in terms of NEMA and the NEMA EIA Regulations.</p> <p>As the proposed development area is highly disturbed, the assessment to the impact of heritage may be reduced to a Letter of Recommendation of Exemption for further heritage studies in order to comply with section 38(8) of the NHRA. See www.asapa.co.za or www.aphp.org.za for specialists who will be able to provide such a report. The letter is referred to in the SAHRA 2007 Minimum Standards: Archaeological and Palaeontological Component of Impact Assessments.</p> <p>The proposed development area is located within an area of moderate sensitivity as per the SAHRIS PalaeoSensitivity map. The BID notes that stromatolites may be present in the area. A desktop Palaeontological Impact Assessment must be undertaken to assess whether or not the development will impact upon palaeontological resources (please see https://www.palaeosa.org/heritage-practitioners.html for a list of palaeontological practitioners). The PIA must comply with the SAHRA 2012 Minimum Standards: Palaeontological Component of Heritage Impact Assessments. The appointed palaeontologist may also choose to submit a Letter of Recommendation for Exemption as noted in the 2012 Minimum Standards.</p> <p>Any other heritage resources as defined in section 3 of the NHRA that may be impacted, such as built structures over 60 years old, sites of</p>	<p>As part of the proposed project, a heritage specialist was consulted. In this regard, the specialist confirmed that no heritage resources are present at the Tshipi Borwa mine and the proposed project will not impact heritage resources. In terms of palaeontological resources, the specialist confirmed that there is a low possibility of palaeontological resources occurring in the project area. It is however important to note that in the event on any chance finds, the SAHRA will be notified and where necessary permits need to be obtained prior to disturbance.</p>

Interested and affected party	Date comment received	Issues raised	Response provided
Natasha Higgit- SAHRA	Comments received from SAHRIS website on 30 July 2019	cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes must also be assessed.	
		The draft BAR and appendices must be submitted at the start of the public review process so that an informed comment can be issued.	This will be done.
Interested and Affected Party			
Moses Moalani (Care for Nature, NGO)	Comment raised at public meeting held on 26 June 2019	Is Tshipi using its own water or is it sourcing water from The Vaal Gamagara?	Tshipi currently sources water from the Vaal Gamagara Water Supply pipeline. Tshipi has recently submitted a water use licence application to the DWS to authorise the abstraction of groundwater from boreholes located at the Tshipi Borwa Mine. This application is still pending. This would be in addition to the Vaal Gamagarra water
		Do you access water from boreholes?	
		Do you intend on rehabilitating the open pit?	Yes. Rehabilitation of the pit is planned to ensure that a sustainable closure end land use which is a combination of natural habitats creation (aquatic and terrestrial) and livestock watering with associated grazing potential is achieved.
		Is the license for closure only for this portion (open pit)?	The closure licence would be for the entire area that currently falls within the Tshipi surface use area.
		Will there be another public meeting?	There is no plan on holding another meeting unless this is specifically requested by I&APs.
		Were department officials invited to this public meeting?	As part of the proposed project a public involvement database is developed. This database includes landowners, surrounding landowners, land users, ward councillors, commenting authorities, decision making authorities, industries, surrounding mining operations and NGO's. Everyone included on the database was notified about the proposed project and were provided with the details of the public and commenting authorities meeting. A copy of the public involvement database and proof of notifying I&APs of the public and commenting authorities meeting are included in Appendix D of the BAR. Focussed meetings were arranged with the DWS, DAFF and DENC as key commenting authorities. Copies of these focussed meeting minutes are included in Appendix D of the BAR. Issues and concerns raised during the focussed meetings by DWS, DAFF and DENC are included in this issues table.
		Were landowners made aware of the meeting too?	
		How do you monitor air quality?	

Interested and affected party	Date comment received	Issues raised	Response provided
Moses Moalani (Care for Nature, NGO)	Comment raised at public meeting held on 26 June 2019		results indicate that mining and surrounding activities and infrastructure contribute towards sources of emissions such as dust fallout and PM10 that occasionally exceed relevant NAAQS and NDCR limits.

TSHIPI é NTLÉ MANGANESE MINING (EDMS.) BPK.**BASIESE EVALUERINGSVERSLAG EN OMGEWINGSBESTUURSPROGRAMVERSLAG
VIR DIE ALTERNATIEWE SLUITINGS- EN REHABILITASIEPROJEK BY DIE
TSHIPI BORWA-MYN****BASIESE EVALUERINGSVERSLAG BESIKKBAAR VIR OPENBARE INSAE****DMH-verwysingsnommer: NC-00156-MR/102**

Geagte Meneer/Mevrou/Mejuffrou

1. INLEIDING

Tshipi é Ntle Manganese Mining (Edms.) Bpk. (Tshipi) bedryf tans die Tshipi Borwa oopgroef mangaanmyn wat geleë is op die plaas Mamatwan 331 (mynreg- en oppervlakgebruikgebied) en Moab 700 (oppervlakgebruikgebied), sowat 18 km suid van Hotazel in die Joe Morolong Plaaslike Munisipaliteit en die John Taolo Gaetsewe Distriksmunisipaliteit in die Noord-Kaapprovinsie. Tshipi is ook geleë in die Gamagara Ontwikkelingskorridor, wat 'n Sleutelfokusgebied vir ekonomiese groei is, soos uiteengesit in die munisipale Geïntegreerde Ontwikklingsplan en Ruimtelike Ontwikkelingsraamwerk.

Die goedgekeurde OBPv verbind Tshipi daartoe om die oppervlak na die voor-mynboutoestand van wildernis en weiding te herstel en vereis dat die oopgroef met deklaag wat tydens mynboubedrywighede op die afvalkliphope geplaas is, teruggevuul word. Onlangse optimaliseringsondersoeke dui daarop dat wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word, die volledige terugvulling van die oopgroef sub-optimaal is as 'n sluitingsoplossing, en 'n alternatiewe sluitings- en rehabilitasie strategie bied:

- die geleentheid vir verbeterde biodiversiteitshabitats met 'n ander terugvullingsbenadering, veral ten opsigte van topografiese verskeidenheid en toegang tot oppervlakwater;
- die geleentheid vir verbeterde grondgebruik wat verbeter met toegang tot oppervlakwater; en
- 'n alternatiewe sluitingsopsie wat die rehabilitasie van afvalkliphope gelyklopend met mynbou, pleks van ná-mynbou en terugvulling, moontlik sal maak.

Bo en behalwe die bogenoemde, sal die volledige terugvulling van die oopgroef 'n ondergrondse hulpbron, wat noord van die huidige goedgekeurde oopgroef geleë is, waarskynlik steriliseer. Die gepaardgaande verlies aan werk, verkryging, besteding, belastings en buitelandse valuta-verdienste is wesenlik en sal 'n materiële netto verlies vir die streek en die land wees.

Derhalwe doen Tshipi aan die hand om die huidige sluitingsverbintenis te verander ten einde 'n meer volhoubare



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en geoptimaliseerde uitkoms te verwesenlik. Ten opsigte hiervan, konsentreer die beoogde projek op:

- gelyklopende terugvulling, (in-groefstorting) slegs tydens mynboubedrywighede;
- glooiing en rehabilitasie van afvalkliphope wat op die oppervlak agterbly, gelyklopend met mynboubedrywighede;
- toekomstige toegang tot gereedelik beskikbare watervoorsiening in 'n groefmeer; en
- optimalisering van die oppervlakgrondvorme en deels teruggevalde groef vanuit 'n perspektief van biodiversiteit, rehabilitasie, grondgebruik en besoedelingsvoorkoming.

Die beoogde doelwit met betrekking tot grondgebruik met sluiting, is gevolglik om 'n volhoubare grondgebruik met sluiting te vestig, wat neerkom op 'n kombinasie van die vestiging van natuurlike habitat (akwaties en terrestrieel) en die beskikbaarheid van water vir lewendehawe met gepaardgaande weidingspotensiaal.

SLR Consulting (South Africa) (Edms.) Bpk. (SLR), 'n onafhanklike firma van omgewingsevalueringspraktisyns (OEP's), is deur Tshipi aangestel om die omgewingsmagtigingsprosesse te bestuur.

In hierdie verband is die Basiese Evalueeringsverslag (BEV) vir die beoogde projek nou beskikbaar vir openbare insae. Hierdie dokument bied 'n opsomming van die bevindinge van die BEV wat vir die beoogde projek onderneem is.

Met betrekking hiertoe is die volgende gedeeltes uit die BE-verslag onttrek en in die opsommingsdokument vervat:

- Die beknopte oorsig – ingesluit in Bylae A van hierdie dokument;
- 'n Opsomming van kwessies en knelpunte wat deur Belangstellende en Geaffekteerde Partye (B&GP's) geopper is – ingesluit in Bylae B van hierdie dokument.

2. OORSIG VAN BEV

Benewens die opsomming van die BEV wat aan alle B&GP's versprei is wat op die projek se openbare betrokkenheidsdatabasis geregistreer is, is volledige afskrifte van die BEV by die volgende plekke beskikbaar vir openbare insae:

- Joe Morolong Plaaslike Munisipaliteit;
- John Taolo Gaetsewe Distriksmunisipaliteit;
- Hotazel Openbare Biblioteek;
- Kuruman Openbare Biblioteek;
- Kathu Openbare Biblioteek; en
- Black Rock Biblioteek.

Die BEV is ook beskikbaar op SLR se webwerf (by <https://slrconsulting.com/za/slr-documents/>). Andersins sal elektroniese kopieë van die BEV ook op versoek aan B&GP's beskikbaar gestel word.

Die BEV sal vanaf **20 Augustus 2019** tot **20 September 2019** vir 'n 30-dae kommentaartydperk versprei word ten einde aan B&GP's 'n geleentheid te bied om kommentaar te lewer op enige aspek van die beoogde projek en op die bevindinge van die basiese evalueringsproses. Alle kommentaar moet skriftelik per faks (011 467 0978) en/of per e-pos (nsmyth@slrconsulting.com) by SLR ingedien word. Alle kommentaar wat ontvang word, sal in die finale BEV vervat word wat vir besluitnemingsdoeleindes aan die Departement van Minerale Hulpbronne beskikbaar gestel sal word.

As u enige vrae het, moet u asseblief in verbinding tree met die onderstaande persoon.

Vriendelike groete



Natasha

BYLAE A: BEKNOPTE OORSIG VAN DIE BEV VIR DIE BEOOGDE PROJEK

AGTERGROND TOT DIE HUIDIGE BEDRYWIGHED

Tshipi é Ntle Manganese Mining (Edms.) Bpk. (Tshipi) bedryf tans die Tshipi Borwa oopgroef mangaanmyn wat geleë is op die plaas Mamatwan 331 (mynreg- en oppervlakgebruikgebied) en Moab 700 (oppervlakgebruikgebied), sowat 18 km suid van Hotazel in die Joe Morolong Plaaslike Munisipaliteit en die John Taolo Gaetsewe Distriksmunisipaliteit in die Noord-Kaapprovinsie. Tshipi is ook geleë in die Gamagara Ontwikkelingskorridor, wat 'n Sleutelfokusgebied vir ekonomiese groei is, soos uiteengesit in die Geïntegreerde Ontwikklingsplan en Ruimtelike Ontwikkelingsraamwerk.

Tshipi beskik tans oor die volgende magtigings:

- 'n Mynreg (NC/30/5/1/2/2/0206MR) wat uitgereik is deur die Noord-Kaap Departement van Minerale Hulpbronne (DMH);
- 'n Omgewingsbestuursprogramverslag (OBPv) wat goedgekeur is deur die Noord-Kaap DMH;
- 'n Omgewingsmagtiging (NC/30/5/1/2/2/206/000083 EM) wat in Januarie 2018 uitgereik is deur die DMH; en gepaardgaande EMPr deur die Noord-Kaap DMH in Januarie 2018.
- 'n Omgewingsmagtiging (NC/30/5/1/2/2/206/000130 MR) wat in Julie 2019 uitgereik is deur die Noord-Kaap DMH met gepaardgaande EMPr; en
- 'n Geïntegreerde Watergebruiklisensie (GWGL) (10/D41K/AGJ/1735) wat uitgereik is deur die Noord-Kaap Departement van Water en Sanitasie (DWS).

AGTERGROND TOT DIE PROJEK

Die goedgekeurde OBPv, sowel as Tshipi se daaropvolgende EMPrs en goedkeurings, verbind Tshipi daartoe om die oppervlak na die voor-mynboustoestand van wildernis en weiding te herstel en vereis dat die oopgroef met deklaag wat tydens mynboubedrywighede op die afvalkliphope geplaas is, teruggevol word. Onlangse optimaliseringsondersoeke dui daarop dat wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word, die volledige terugvulling van die oopgroef sub-optimaal is as 'n sluitingsoplossing, en 'n alternatiewe sluitings- en rehabilitasie strategie bied:

- die geleentheid vir verbeterde biodiversiteitshabitats met 'n ander terugvullingsbenadering, veral ten opsigte van topografiese verskeidenheid en toegang tot oppervlakwater;
- die geleentheid vir verbeterde grondgebruik wat verbeter met toegang tot oppervlakwater; en
- 'n alternatiewe sluitingsopsie wat die rehabilitasie van afvalkliphope gelyklopend met mynbou, pleks van ná-mynbou en terugvulling, moontlik sal maak.

Bo en behalwe die bogenoemde, sal die volledige terugvulling van die oopgroef 'n ondergrondse hulpbron, wat noord van die huidige goedgekeurde oopgroef geleë is, waarskynlik steriliseer. Die gepaardgaande verlies aan werk, verkryging, besteding, belastings en buitelandse valuta-verdienste is wesenlik en sal 'n materiële netto verlies vir die streek en die land wees.

Derhalwe doen Tshipi aan die hand om die huidige sluitingsverbintenis te verander ten einde 'n meer volhoubare en geoptimaliseerde uitkoms te verwezenlik. Ten opsigte hiervan, konsentreer die beoogde projek op:

- gelyklopende terugvulling, (in-groefstorting) slegs tydens mynboubedrywighede;
- glooiing en rehabilitasie van afvalkliphope wat op die oppervlak agterbly, gelyklopend met mynboubedrywighede;

- toekomstige toegang tot gereedlik beskikbare watervoorsiening in 'n groefmeer; en
- optimalisering van die oppervlakgrondvorms en deels teruggevlude groef vanuit 'n perspektief van biodiversiteit, rehabilitasie, grondgebruik en besoedelingsvoorkoming.

Die beoogde doelwit met betrekking tot grondgebruik met sluiting, is gevolglik om 'n volhoubare grondgebruik met sluiting te vestig, wat neerkom op 'n kombinasie van die vestiging van natuurlike habitat (akwaties en terrestrieel) en die beskikbaarheid van water vir lewendehawe met gepaardgaande weidingspotensiaal.

RASIONAAL VAN DIE BEOOGDE PROJEK

Op 17 Mei 2019 het die Minister van Omgewing, Bosbou en Visserye die 2^{de} konsep van die 'Beoogde Regulasies met Betrekking tot die Finansiële Voorsiening vir die Rehabilitasie en Herstel van Omgewingskade weens Verkenning, Prospektering, Eksplorasië, Mynbou- of Produksiebedrywighede' (2^{de} Konsepregulasies op Finansiële Voorsiening) vir kommentaar gepubliseer. Die 2^{de} Konsepregulasies vir Finansiële Voorsiening poog om die NEMA-regulasies op Finansiële Voorsiening, soos gewysig, (Regulasies op Finansiële Voorsiening, Staatskennisgewing R1147 van 2015), wat op 20 November 2015 gepubliseer is, ten volle te vervang.

Die 2^{de} Konsepregulasies op Finansiële Voorsiening fokus op die vergemakliking van volhoubare eindgebruike van grond vanuit 'n omgewingsoogpunt. In hierdie verband, is die volgende van toepassing:

- Die 2de Konsepregulasies op Finansiële Voorsiening beklemtoon dat die doel met 'n finansiële voorsiening wat opsy gesit word, is om te verseker dat bedrywighede 'n goedgekeurde, volhoubare eindtoestand met sluiting kan verwesenlik;
- Maatskappye beskik oor die vermoë om 'n geloofwaardige, volhoubare eindtoestand in die finale rehabilitasie-, uitbedryfstellings- en mynsluitingsplan te omskryf. Die volhoubare eindtoestand moet plaaslike toestande, regulatoriese kompleksiteite, belanghebbers se verwagtinge, omgewingsgeleenthede en tegniese oplossings vir die infrastruktuur en fasiliteite ter ondersteuning van die volhoubare eindtoestand weerspieël; en
- Die gedagtesverskuiwing van klassieke mynsluiting (om die grond se toestand te laat terugkeer soos vóór mynbou) na die fokus op 'n oorgangseconomie, bevorder die potensiaal vir veelvuldige alternatiewe sluitingsgeleenthede.

Die beoogde projek bied 'n alternatiewe sluitings- en rehabilitasie-strategie vir die goedgekeurde huidige verbintenis om die omgewing weer te herstel tot weiding- en/of wildernis-potensiaal ten einde die sluitingsdoelwitte van Tshipi in lyn te bring met die volhoubare eindtoestandfokus van die 2^{de} Konsepregulasies op Finansiële Voorsiening. Die beoogde doelwit met betrekking tot grondgebruik met sluiting, is gevolglik om 'n volhoubare grondgebruik met sluiting te vestig, wat neerkom op 'n kombinasie van die vestiging van natuurlike habitat (akwaties en terrestrieel) en die beskikbaarheid van water vir lewendehawe met gepaardgaande weidingspotensiaal.

OPSOMMING VAN MAGTIGINGSVEREISTES

Kragtens artikel 24 van die NEMA moet vir DMR aansoek gedoen en verkry word. Die OIE-regulasies wat gevolg word, is Regerings kennisgewing verordening (RKV) 982 van 4 Desember 2014, soos gewysig.

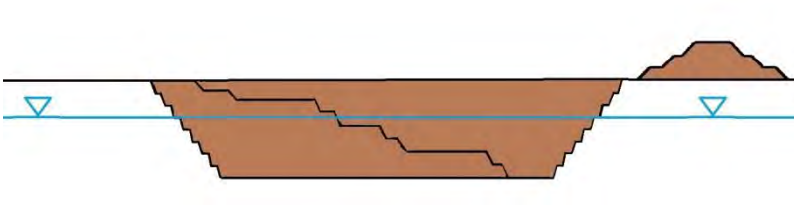
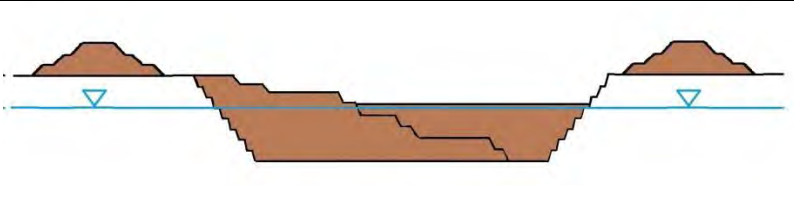
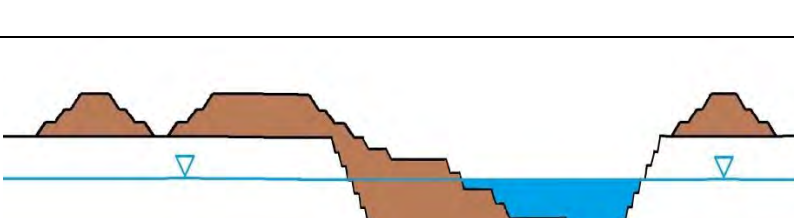

Die genoteerde aktiwiteite snellers val onder GNR 983 Notering Kennisgewing 1, waardeur die behoefte aan 'n basiese assessering onderneem word en 'n basiese assesseringsverslag opgestel en ingedien word ter ondersteuning van die aansoek om omgewingsmagtiging ingevolge regulasie 19 van die OIE-regulasies, 2014.

SLR Consulting (Africa) (Edms.) Bpk. (SLR), 'n onafhanklike firma van omgewingsevalueringpraktisyne (OEP's), is deur Tshipi aangestel om die omgewingsmagtigingsprosesse te bestuur.

ALTERNATIEWE WAT OORWEEG IS

Die goedgekeurde OBPv verbind Tshipi daartoe om die oppervlak na die voor-mynbutoestand van wildernis en weiding te herstel en vereis dat die oopgroef heeltemal teruggevol word. Onlangse optimaliseringsondersoeke dui daarop dat wanneer omgewings-, sosio-ekonomiese, wetlike, kommersiële en tegniese faktore in ag geneem word, die volledige terugvulling van die oopgroef sub-optimaal is. Projekalternatiewe wat oor weeg is, sluit in: volledige terugvulling (opsie 1); gedeeltelike terugvulling (opsie 2); slegs gelyklopende terugvulling (in-groefstorting) (opsie 3); en geen terugvulling (opsie 4). Die ontleding van die alternatiewe het getoon dat **opsie 3 Gelyklopende terugvulling** die opsie van voorkeur vanuit 'n omgewings-, sosio-ekonomiese, tegniese, wetlike en kommersiële perspektief is.

Tabel A: projekalternatiewe wat oorweeging geniet het

Opsies oorweeg	Illustrasie	Besonderhede
Volledige terugvulling (opsie 1)		Terugvulling van die uiteindelige groefgat ná mynbou tot op die oorspronklike grondvlak, voor rehabilitasie van die oppervlak volgens die huidige goedgekeurde OBPv.
Gedeeltelike terugvulling (opsie 2)		Terugvulling van die uiteindelige groefgat ná mynbou tot op 'n vlak net bo die terugslagwatertafelvlak, sowat 50 m onder die oorspronklike grondvlak, vóór rehabilitasie van die oppervlak.
Gelyklopende terugvulling (In-groefstorting) (opsie 3)		Terugvulling van die groefgat wat net gelyklopend met mynbou geskied, ook in-groefstorting genoem, wat 'n gedeeltelike groefgat en gepaardgaande groefmeer tot gevolg het wat 'veilig gemaak' (geprofileer) sal word, vóór rehabilitasie van die oppervlak.
Geen terugvulling (opsie 4)		Geen terugvulling van die groef nie, hetsy gelyklopend met mynbou of ná mynbou, d.i. alle afvalklippe gaan na oppervlakhope. Die groef se sywande en kopkante sal net 'veilig gemaak' word. Die hele groef word 'n groefmeer.

IMPAKTE EN BESTUURSAKSIES

Hierdie afdeling bied 'n oorsig van die evaluering van die potensiële impakte van die projek en hou maatreëls voor om die impakte te voorkom en/of te versag. Die potensiële impakte wat met die myn se bedrywighede en infrastruktuur verband hou, kan gekategoriseer word in dié wat lae, medium en/of hoë wesenlikheid in die scenario voor versagting het. Al drie kategorieë van impakte verg 'n mate van bestuursaksies wat, sou dit suksesvol geïmplementeer word, die wesenlikheid van die impakte sal verminder en/of versterk. Kumulatiewe en latente impakte word ook opgesom in die tabel hieronder. Daarbenewens bied die tabel ook 'n samevatting van die positiewe en negatiewe impakte wat die wesenlikheidsgradering van die impakte in beide die onversagte en versagte scenario's vir die tans goedgekeurde verbintenis (opsie 1) teenoor die beoogde sluitingsopsie van voorkeur (opsie 3) vergelyk.

Die tabel hieronder bied 'n opsomming van die potensiële impakte in geen spesifieke volgorde van belangrikheid nie.

TABEL B – OPSOMMING VAN POTENSIËLE IMPAKTE

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Wesenlikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Wesenlikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
Geologie (minerale hulpbronne)	Verlies aan en sterilisasie van minerale hulpbronne	<p>Die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019), verbind Tshipi daartoe om die oopgroef heeltemal terug te vul met sluiting en sodoende sal 'n dieper minerale hulpbron, wat noord van die tans goedgekeurde oopgroef geleë is, gesteriliseer word, weens die nodigheid (en gepaardgaande koste) om 'n vertikale skagkompleks op te rig om toegang tot die hulpbron te kry wat andersins toeganklik kan wees vanaf die oopgroef se hoë wand. Hierdie kwessie is tersaaklik vir wie ook al in die toekoms aansoek doen om die ondergrondse hulpbron te ontgin. Ten opsigte van die beoogde projek, kan ondergrondse hulpbronne toeganklik wees, met behoorlike beplanning kan dit maklik wees om ondergrondse hulpbronne te bereik en nie die grond te steriliseer nie.</p> <p>Daarbenewens, in die tans goedgekeurde scenario, ná volledige terugvulling, sal toegang tot geselekteerde afvalkliphulpbronne moeilik of onmoontlik wees, terwyl in die scenario van die beoogde projek (slegs gelyklopende terugvulling) daar meer geleentheid is om toegang tot uitgesoekte terugvulling te verkry vir vergruising, sifting en verkoop as boumateriaal. Verwante bestuursaksies fokus op doeltreffende beplanning en uitvoering van gelyklopende terugvulling.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. In hierdie opsig hou hierdie impak verband met die moeilike toeganklikheid tot mynresiduhulpbronne wat hoofsaaklik verband hou met afvalklip wat tydens volledige terugvulling in die oopgroef teruggevol word en tot 'n mindere mate met oorblywende oppervlakresidu-aanlegte. Kennis moet gedra word dat toe die vorige evaluering afgehandel was, die lewensvatbaarheid van toegang tot ondergrondse hulpbronne in die toekoms nie oorweeg is nie en was dit derhalwe nie in die vorige evaluering ingesluit nie. Die beoogde projek verander dus die goedgekeurde onversagte en versagte impakgraderings.</p>	Hoog	Laag	Medium en positief	Hoog en positief
Topografie	Veiligheid vir derdepartye en diere	<p>Gevaarlike infrastruktuur en uitgrawings sluit in alle strukture waarin of waarvan af derdepartye (mense) en diere (lewende hawe en wilde diere) kan val en beseer raak. Die beoogde projek sal finale gerehabiliteerde gebiede tot gevolg hê wat as gevaarlik geag word (afvalkliphope) en 'n gedeeltelike oopgroef met 'n groefmeer. Daarbenewens, maak die beoogde projek voorsiening vir die vroeë rehabilitasie van afvalkliphope wat finale vorm gelyklopend met mynboubedrywighede bereik het. Verwante bestuursaksies sluit in algemene terreinrehabilitasie, vroeë rehabilitasie van afvalkliphope, beveiliging van die groef en toegangsbeheer.</p>	Hoog	Laag	Hoog	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv (SLR, Augustus 2017) geëvalueer. Die beoogde projek verander nie die goedgekeurde weselikheid-van-impakgradering nie.</p>				
Grond en grondvermoë	Verlies aan grondhulp-bronne en grondvermoë deur kontaminasie	<p>Grond is 'n waardevolle hulpbron wat 'n verskeidenheid van ekologiese funksies onderhou. Grond is die sleutel tot die hervestiging van grondvermoë ná sluiting. Die verlies van grondhulpbronne het 'n regstreekse impak op die potensiële verlies van die grond se natuurlike vermoë. Uitbedryfstellingsbesoedelingsbronne sluit in stortings van afvalmateriaal, vuilwater, brandstof, smeermiddels en lekkasies van voertuie en toerusting, asook afloop van afvalkliphope af. Ná-sluitingsinfrastruktuur sluit in afvalkliphope wat op die oppervlak bly, wat die potensiaal het om grond deur langtermyn afloop te besoedel. Verwante bestuursaksies fokus op beheer van uitbedryfstellings-aktiwiteite volgens die goedgekeurde OBPv (besoedelingsvoorkoming) en rehabilitasie.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die beoogde projek verander nie die goedgekeurde impakgradering nie.</p>	Hoog	Laag	Hoog	Laag
	Verlies aan grondhulpbronne en grondvermoë deur fisiese versteuring	<p>Grond is 'n waardevolle hulpbron wat 'n verskeidenheid van ekologiese funksies onderhou. Grond is die sleutel tot die hervestiging van grondvermoë ná sluiting. Die verlies van grondhulpbronne het 'n regstreekse impak op die potensiële verlies van die grond se natuurlike vermoë. Uitbedryfstellingsaktiwiteite en ná-sluitingsinfrastruktuur, soos afvalkliphope wat op die oppervlak agterbly, het die potensiaal om grond en verwante grondvermoë deur verwydering, kompaktering en/of erosie te versteur, veral in die onversagte scenario. In die geval van erosie, sal die grond verlore wees vir die gebied van versteuring. In die geval van kompaksie, sal die grond se funksionaliteit eerstens ingeboet word deur 'n gebrek aan die vermoë van wortelvorming en belugting, en tweedens sal gekompakteerde grond waarskynlik erodeer, want met minder inherente funksionaliteit sal daar min kans wees vir die vestiging van plantegroei en ander materie wat die grond natuurlik teen erosie beskerm. Verwante bestuursaksies fokus op beheer van uitbedryfstellingsaktiwiteite volgens die goedgekeurde OBPv (grondbewaring), rehabilitasie en monitering ná sluiting.</p>	Hoog	Laag	Hoog	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die beoogde projek verander nie die goedgekeurde impakgradering nie.</p>				
Biodiversiteit	Fisiese vernietiging van biodiversiteit	<p>Gebiede van hoë ekologiese sensitiwiteit is werkende biodiversiteitsgebiede met spesiediversiteit en gepaardgaande intrinsieke waarde. Daarbenewens dra van hierdie gebiede beskermde spesies (Vaalkameeldoring en Kameeldoring). Die skakelgebiede is waardevol as gevolg van die rol wat hulle speel om die migrasie of verskuiwing van flora en fauna tussen die gebiede te verwezenlik, wat 'n belangrike funksie vir die groter ekosisteem is. Die transformasie van grond vir enige doel, insluitend mynbou en verwante aktiwiteite, verhoog die vernietiging van die terreinspesifieke biodiversiteit, die fragmentasie van habitats, verminder sy intrinsieke funksionaliteit en verminder die skakelrol wat onontwikkelde grond tussen gebiede met verskillende biodiversiteitsbelang speel. Uitbedryfstellings- en ná-sluitingsaktiwiteite wat ontblote en nie-herbeplante gebiede, ongerehabiliteerde afvalkliphope en 'n ongeprofileerde oopgroef in die onversagte scenario tot gevolg het, het die potensiaal om biodiversiteit fisies te vernietig. Met rehabilitasie en toegang tot 'n funksionele groefmeer, kan akwatiese habitats gevestig en terrestriële habitats versterk word. Verwante bestuursaksies fokus op beheer van uitbedryfstellingsaktiwiteite volgens die goedgekeurde OBPv (beperkte ontbossing van plantegroei, biodiversiteitsaksieplan, verkryging van boomermitte), rehabilitasie, groefmeerontwerp om volhoubare akwatiese stelsels en ná-sluitingsterrestriële ekologie te dra en op monitoring ná sluiting.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Met versagting verander die weselikheidsgradering met 'n verandering aan die sluitingsverbintenis, want met toegang tot 'n funksionele groefmeer, kan akwatiese habitats gevestig en terrestriële habitats versterk word. Die beoogde projek verander dus die goedgekeurde versagte impakgradering.</p>	Hoog	Medium	Hoog	Hoog en positief
	Algemene versteuring van biodiversiteit	<p>Sou daar nie rehabilitasie wees nie, kan uitbedryfstellingsaktiwiteite oor die algemeen biodiversiteit versteur deur die teenwoordigheid van ontblote gebiede, besoedelde grond, indringerspesies en 'n ongeprofileerde groef, asook</p>	Hoog	Medium	Hoog	Medium en positief

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>antropogeniese aktiwiteite wat op hul beurt die sukses van rehabilitasie affekteer. Die sluitingsfase kan ook gekontamineerde water in die groefmeer tot gevolg hê wat, sou dit sonder versagting gedrink word, skadelik vir gewerweldes en ongewerweldes kan wees. Ten opsigte van die beoogde projek, met suksesvolle rehabilitasie en herbeplanting, sal 'n geskikte akwatiese habitat (wat geskikte watergehalte in die groefmeer insluit) en terrestriële habitat gevestig word. Dit sal die natuurlike hervestiging van dierspesies en die herbekendstelling van plantspesies in die gebied bevorder, wat sodoende biodiversiteitskompleksiteit, diversiteit, gemeenskapsensitiwiteit en algehele gemeenskapstabiliteit sal herstel en versterk. Verwante bestuursaksies fokus op beheer van uitbedryfstellingsaktiwiteite volgens die goedgekeurde OBPv (rehabilitasie, indringerspesieprogram, geen verdraagsaamheidsbeleid vir doodmaak van diere, veldbrandvoorkoming, spoedbeheer en besoedelingsvoorkoming) en monitering.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie. Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Ten opsigte van die beoogde projek, met toegang tot 'n funksionele groefmeer, sal geskikte akwatiese en terrestriële habitats gevestig en versterk word wat op hul beurt die natuurlike hervestiging van dierspesies en herbekendstelling van plantspesies in die gebied sal aanmoedig. Die beoogde projek verander dus die goedgekeurde versagte impakgradering.</p>				
Oppervlak water	Verandering van natuurlike dreineringspatroon	<p>Tydens die sluitingsfase, sal stormwaterbestuursinfrastruktuur om vuilwater rondom die grense van die afvalkliphope in te perk, soos vereis word deur wetgewing, benodig word. In hierdie verband sal die opvangs van reënwater en afloop via vierkantige uitgrawings aan die voet geskied. Die vierkantige uitgrawings sal in plek bly totdat die afvalkliphope suksesvol gerehabiliteer is, waarna dit verwyder kan word. Voorts sal natuurlike oppervlakwater afloop en reënval ook in die gedeeltelike oopgroef opgevang word. Die opgevangde reënwater en afloop sal gevolglik verlore wees vir die opvangsgebied en dit kan aanleiding gee tot die verandering in dreineringspatrone op 'n soortgelyke wyse as wat tans op die terrein gebeur en steeds tydens die uitbedryfstellingsfase die geval sal wees. Verwante bestuursaksies fokus op rehabilitasie om natuurlike dreineringspatrone te herstel, waar moontlik.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p>	Medium	Laag	Medium tot Laag	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. In hierdie opsig sal natuurlike dreineringspatrone met rehabilitasie teen sluiting herstel wees. Ten opsigte van die beoogde projek, kan die verandering van natuurlike dreineringspatrone vir die deels oop groef nie versag word nie; dit is egter belangrik om daarop te let dat die opvangs van reënwater en afloop in die deels oop groef wel bydra tot die ontwikkeling van die groefmeer wat vir alternatiewe gebruike aangewend kan word. Die eindgraderings bly eenders.				
	Besoedeling van oppervlakwaterhulpbronne	<p>Uitbedryfstellingsaktiwiteite wat die potensiaal het om oppervlakwaterhulpbronne te besoedel, sluit in sedimentasie weens erosie, stortings (afvalmateriaal, vuilwater, brandstof, smeermiddels en lekkasies), besoedelde grond en afloop van afvalkliphope af. Ná-sluitingsaktiwiteite wat die potensiaal het om oppervlakwaterhulpbronne te besoedel, sluit in besoedelde groefmeerwater, sedimentasie weens erosie en afloop van afvalkliphope af. Dit is onwaarskynlik dat besoedelaars die naaste waterloop (Vlermuisleegte) sal bereik, siende dat dit 2 km wes van die myn geleë en efemeer van aard is en derhalwe gepaard gaan met lang tydperke van geen vloei nie. Met betrekking tot die groefmeer, in die onversagte scenario, kan die water besoedel raak en met verloop van tyd vir weidingsdoeleindes gebruik word. Bestuursaksies fokus op besoedelingsvoorkoming, rehabilitasie, monitering, vestiging van drywende vleilande (wat nodig is om groefmeerwater te behandel om aan die DWS se doelwitte met betrekking tot lewendehawesuiping te voldoen) en vergoeding vir enige waterverwante verlies.</p> <p>'n Potensiële latente impak kan verband hou met langtermyn agteruitgang van groefmeerwatergehalte, afhangend van die sukses van die voortgesette drywende vleilandbehandeling. As hierdie latente impak manifesteer en nie deur handelingsaanpassings versag kan word nie, sal die gebruik van/toegang tot die groefmeer heroorweeg moet word. Die gepaardgaande standaardbestuursmaatreëls sal wees om toegang tot die groefmeer te omhein en/of af te kamp. Geen kumulatiewe impakte is geïdentifiseer nie.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die beoogde projek bring kwessies mee wat verband hou met die groefmeer wat die goedgekeurde impakgradering in die onversagte scenario verander. Daar is geen verskil in die impakgraderings in die versagte</p>	Medium	Laag	Hoog	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		scenario nie.				
Grondwater	Daling van grondwater-vlakke	<p>Vóór mynbou het die natuurlike diepte van die water in omliggende boorgate gevarieer tussen 25 m en 55 m onder grondvlak. Huidige grondwatervlakmoniteringsdata wys dat waterdieptes varieer tussen 41 m en 75 m onder grondvlak. Met uitbedryfstelling (wanneer mynbou staak), hoewel ontwateringsaktiwiteit sal ophou, word voorspel dat die gemodelleerde aftrekkingskeël wat weens ontwatering ontstaan het, teen 'n maksimumomvang van 5,5 km na die ooste en 8,3 km na die weste van die Tshipi Borwa-myn sal wees. Derdepartye in die gesimuleerde ontwateringskeël kan gevolglik 'n daling in watervlakke ervaar. Wanneer mynbou en ontwatering staak, sal grondwatervlakke begin terugkeer en die watervlak in die groef sal styg. Met tyd, namate die groefmeervlak styg, sal invloei afneem totdat 'n bestendige vlak bereik word. Weens verdampingsverliese en groefgeometrie, sal die deels gevulde groef vir ewig 'n hidrouliese sink wees, aangesien die bestendige vlak van die groefmeer op sowat 6 m onder die natuurlike grondwatervlak, wat sowat 35 m onder grondvlak is, sal bly. Die gepaardgaande ontwateringskeël se hidrouliese helling sal beduidend kleiner wees. Gevolglik sal grondwatervlakke by eksterne derdepartyboorgate volgens voorspelling terugkeer tot op die natuurlike grondwatervlak. Die impak word dus as onbeduidend beskou. Verwante bestuursaksies fokus op monitering van grondwatervlakke en vergoeding vir verlies aan watervoorsiening.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is nie as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer nie, aangesien aanvaar is dat grondwatervlakke in eksterne derdepartyboorgate met sluiting tot op die natuurlike grondvlak sou terugkeer het. Die beoogde projek verander nie die goedgekeurde impakgradering nie.</p>	Onbeduidend			
	Besoedeling van grondwaterhulpbronne	Die sluitingsfase sal finale grondvorms, soos afvalkliphope, tot gevolg hê wat op die oppervlak bly en die afvalklip wat in die oopgroef teruggevul word, kan die potensiaal kan hê om waterhulpbronne te besoedel deur langtermyn insypeling en/of afloop. As deel van die beoogde projek, sal die deels teruggevolle groef as hidrouliese sink dien en sodoende sal die omvang van die besoedelingspluim afneem omdat die aftrekkingskeël 'n deel van die besoedelingspluim in die groef sal intrek. Geen impak op enige eksterne derdepartyboorgate word voorspel nie. Verwante bestuursaksies fokus op monitering van grondwatergehalte en	Laag	Laag	Laag	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>vergoeding vir verlies aan watervoorsiening.</p> <p>Geen bykomende latente impakte is geïdentifiseer nie. Modelleringsuitslae sluit in bydraes van eksterne bronne in die konteks van huidige watergehalte. Die voorspelde gemodelleerde uitslae is dus kumulatief van aard.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die beoogde projek verander nie die goedgekeurde impakgradering nie, maar die beoogde projek minimaliseer egter die omvang van die besoedelingspluim weens die hidrouliese sink wat verband hou met die deels teruggevulde groef.</p>				
Lug	Lugbesoedeling	<p>Die primêre besoedelaars wat verband hou met die beoogde projek, sluit in: stofdeeltjies kleiner as 10 mikron (PM10 en PM2,5) wat ingesam kan word, groter totale gesuspendeerde deeltjies (TSP) wat verband hou met die uitsakking van stof, Mn-konsentrasie (in afvalkliphope) en gasemissies, hoofsaaklik van voertuie en kragopwekkers. Met sluiting sal die primêre bron van windverwaaide stof van die blootgestelde afvalkliphoopoppervlakke af wees. Hierdie besoedelaars het die potensiaal om by te dra tot lugbesoedeling. Dit is egter belangrik om daarop te let dat modelleringsuitslae getoon het dat oorskrydings van die PM10, PM2,5, stofuitsakking en Mn-konsentrasies, onwaarskynlik by sensitiewe reseptors ervaar sal word. Verwante bestuursaksies fokus op monitering en stofonderdrukking (veral tydens die uitbedryfstellingsfase).</p> <p>Geen bykomende latente impakte is geïdentifiseer nie. Modelleringsuitslae sluit in bydraes van eksterne bronne in die konteks van huidige luggehalte. Die voorspelde gemodelleerde uitslae is dus kumulatief van aard.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die impakgradering het hoog gebly vir Mn-konsentrasies, selfs met versagting, aangesien modellering voorspel het dat oorskrydings van die Wêreldgesondheidsorganisasie (WGO) se riglyne verwag kan word by party wonings naby die myn. Dit is belangrik om daarop te let dat, sedert die opstel van die vorige OIE/OBPv's, monstere van die Mn-inhoudskonsentrasies in die afvalkliphope by Tshipi geneem is. Die nuwe inligting toon dat daar minder Mn-inhoud is as wat voorheen aangeneem is. Vir die beoogde projek, het die goedgekeurde versagte impakgradering gevolglik verander.</p>	Hoog	Medium (het Hoog gebly vir Mn)	Laag	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPV) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
Geraas	Toename in steurende geraasvlakke	<p>Geraasbesoedeling kan steurnis veroorsaak wat verskillende impakte op verskillende reseptors sal hê, aangesien party reseptors baie sensitief is vir geraas en ander reseptors nie. Potensiële mensegeraasreseptors sluit in die afgeleë wonings en plaashuise binne 'n 2 km-radius vanaf die Tshipi Borwa-myn. Op grond van die heersende windveld, word verwag dat steurende geraasvlakke meer opmerklik sal wees na die ooste en suide tydens die dag en na die noorde en noordnoordweste tydens die nag. Ná-sluitingsaktiwiteite wat steurende geraasvlakke kan genereer, sluit in onderbroke voertuig- en materiaalhanteringsaktiwiteite wat verband hou met ná-sluitingsmonitering, instandhouding en nasorg. Bestaande grondlyn bedryfsgeraas by die Tshipi Borwa-myn is onder die IFC-riglyn vir woongebiede, en as deel van interne monitering, is geen hoorbare geraas weens die mynboubedrywigheede opgetel nie, net geraas van sonbesies (insekte). Verwante bestuursaksies fokus op geraasdemping, toerusting- en voertuiginstandhouding en om verkeer tot dagligure te beperk.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is nie as deel van die goedgekeurde OBPV's (SLR, Augustus 2017 en April 2019) geëvalueer nie, aangesien geraassteurnisse en geraassteurnisaktiwiteite tot alle fases vóór sluiting beperk was. Die beoogde projek het bykomende monitering, nasorg en instandhoudings-/aanpassingsvereistes (daarstel van akwatiese habitats) tot gevolg, derhalwe verander dit die impakgradering.</p>	Nie van toepassing nie	Nie van toepassing nie	Laag	Laag
Visueel	Negatiewe visuele uitsigte	<p>Die visuele landskap word bepaal met inagneming van: landskapkarakter, gevoel vir plek, gehalte van natuurskoon, sensitiwiteit van die visuele hulpbron en sensitiewe uitsigte. In hierdie opsig, is die visuele landskap in die Tshipi Borwa-myngebied getransformeer weens die teenwoordigheid van goedgekeurde mynbou-infrastruktuur en -bedrywigheede. Oor die algemeen, word die visuele landskap van die gebied om die Tshipi Borwa-myn gekenmerk deur plat, oop gebiede wat gepaard gaan met semi-ariëde plantegroei en 'n efemere rivier (Vlermuisleegterivier), wat beïnvloed is deur die teenwoordigheid van bestaande mynboubedrywigheede, paaie, kraglyninfrastruktuur en afgeleë plaasopstalle. Die beoogde projek sal visuele steurnisse (afvalkliphope wat op die oppervlak agterbly en 'n deels oop groef) ná sluiting tot gevolg hê wat sensitiewe reseptors as negatief kan ervaar, veral in die onversagte scenario waar</p>	Hoog	Laag	Hoog	Laag

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Wesenlikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Wesenlikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>rehabilitasiebedrywighede tydens uitbedryfstelling nie in werking gestel is nie. Dit is egter belangrik om daarop te let dat Tshipi langs bestaande mynboubedrywighede (UMK en Mamatwan) geleë is, wat 'n agteruitgang in die natuurlike landskap tot gevolg gehad het. Verwante bestuursaksies fokus op rehabilitasie en veral vroeë rehabilitasie van afvalkliphope as deel van huidige mynboubedrywighede.</p> <p>Geen latente impakte is geïdentifiseer nie. Evalueerimpakte in die konteks van omliggende myne bied 'n kumulatiewe impakevalueeringsperspektief.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die beoogde projek verander nie die impakgradering nie, maar die toestand van rehabilitasie met sluiting sal egter verbeter word in die versagte scenario deur die vroeë rehabilitasie van die afvalkliphope.</p>				
Verkeer	Padversteuring en verkeersveiligheid	<p>Die beoogde projek sal nie bykomende verkeer genereer nie en gevolglik sal daar na verwagting geen projekverwante padversteuring en verkeersveiligheidsimpakte wees nie.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p>	Onbeduidend			
Erfenis-/Kultuur- en paleontologiese hulpbronne	Verlies aan erfenis-/kultuur- en paleontologiese hulpbronne	<p>Geen erfenishulpbronne kom voor by die Tshipi Borwa-myn nie. Voorts is daar 'n lae moontlikheid dat paleontologiese hulpbronne in die gebied kan voorkom. Verwante bestuursaksies fokus egter op die stappe wat benodig word in die onwaarskynlike geval van 'n toevallige vonds.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p>	Onbeduidend			
Sosio-ekonomies	Inwaartse migrasie	<p>Mynboubedrywighede is geneig om 'n verwagting van werkverskaffing in alle projekfasies voor sluiting te skep. Hierdie verwagting kan aanleiding gee tot die invloed van werksoekers na 'n gebied, wat op sy beurt druk plaas op bestaande gemeenskappe, behuising, basiese dienslewering en groter kommer betreffende veiligheid en sekerheid. Impakte wat verband hou met inwaartse migrasie, is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Hoewel die rehabilitasie- en sluitingsplan aangepas sou wees om voorsiening te maak vir die beoogde projek en 'n verandering aan die sluitingsdoelwit, sal die beoogde projek geen bykomende werksgeleenthede skep nie, aangesien Tshipi bestaande kontrakteurs en werkers as deel van rehabilitasiebedrywighede sal gebruik. Die potensiaal vir 'n toename in maatskaplike risiko's word gevolglik as</p>	Onbeduidend			

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Weselikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Weselikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>onbeduidend vir die beoogde projek geag. Verwante bestuursaksies fokus op implementering van die goedgekeurde OBPv-verbintenisse wat verband hou met werwing, kommunikasie en opleiding met betrekking tot gesondheidsbewustheid.</p> <p>Geen kumulatiewe impak of bykomende latente impakte is geïdentifiseer nie.</p>				
	Ekonomiese impak	<p>Mynbou het 'n positiewe netto ekonomiese impak op die nasionale, plaaslike en streekse ekonomie. Regstreekse voordele word ontleen uit lone, belastinge en winste. Indirekte voordele word ontleen uit die verkryging van goedere en dienste en werknemers se sterker bestedingsmag. In die tans goedgekeurde scenario, word die oopgroef heeltemal teruggevul en die grond weer na weiding/wildernis herstel. Vanuit 'n netto ekonomiese perspektief, sal die ekonomie 'n beraamde waarde van meer as R21,4 miljard op 'n nasionale, streeks- en plaaslike vlak verloor, aangesien die volledig teruggevolle groef die toegang tot toekomstige ondergrondse hulpbronne sal verhoed. Ingevolge die beoogde projek, sal die nasionale, streeks- en plaaslike ekonomie baat met R21,5 miljard omdat die deels teruggevolle groef maklike toegang tot ondergrondse hulpbronne moontlik sal maak. Verwante bestuursaksies fokus op doeltreffende beplanning en uitvoering van slegs gelyklopende terugvulling (in-groefstorting).</p> <p>Geen latente impakte is geïdentifiseer nie.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Kennis moet gedra word dat, ten tyde van die afhandeling van die vorige evaluering, oorweging nie aan die lewensvatbaarheid van toegang tot ondergrondse hulpbronne in die toekoms geskenk was nie, met die gevolg dat dit nie in die vorige evaluering ingesluit is nie en derhalwe die impakgradering verander.</p>	Medium tot Hoog en positief	Medium tot Hoog en positief	Hoog en positief	Hoog en positief
Grondgebruik	Verandering in grondgebruik	<p>Mynbouerverwante bedrywighede het die potensiaal om grondgebruik te affekteer, beide in die mynbougebied en in die omliggende gebiede. Die belangrike verwante potensiële omgewingsimpakte sluit in grond, grondvermoë, biodiversiteit, water, lug, geraas, visuele en ekonomiese impakte. Die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019), vereis dat die oppervlak herstel word na 'n toestand van wildernis en weiding vóór mynbou en vereis dat die oopgroef met sluiting teruggevul word. Die beoogde projek beoog 'n verandering in hierdie strategie, waar die doelwit vir grondgebruik met sluiting is om 'n volhoubare grondgebruik met sluiting te vestig wat neerkom op 'n</p>	Hoog	Laag	Hoog	Hoog en positief

Aspek	Potensiële impak	Opsomming van bespreking oor impak en verwysing na versagtingsmaatreëls vir die beoogde projek	Wesenlikheid van Impak (Goedgekeurde OBPv) – Opsie 1		Wesenlikheid van Impak (beoogde projek) – Opsie 3	
			Onversag	Ná versagting	Onversag	Ná versagting
		<p>kombinasie van natuurlike habitatvestiging (akwaties en terrestrieel) en beskikbaarheid van water vir lewendehawe met gepaardgaande weidingspotensiaal. Verwante bestuursmaatreëls fokus op rehabilitasie.</p> <p>Geen latente impakte is geïdentifiseer nie. Afhangend van die aard en skaal van omliggende mynboubedrywighede teen die ná-sluitingstadium, kan dít 'n kumulatiewe impakkategorie wees.</p> <p>Hierdie impak is as deel van die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019) geëvalueer. Die beoogde projek het 'n verandering in die sluitingstrategie tot gevolg en vestig en verbeter alternatiewe grondgebruike (terrestriële en akwatiese habitats) en bied 'n waterhulpbron vir lewendehawesuiping met gepaardgaande weidingspotensiaal. Die beoogde projek verander dus die goedgekeurde versagte impakgradering.</p>				

IMPAKVERKLARING

Die evaluering van die beoogde projek hou die potensiaal in vir wesenlike negatiewe impakte om plaas te vind (veral in die onversagte scenario) op die biofisiese en sosio-ekonomiese omgewings, beide op die projekterreine en in die omliggende omgewing. Met bestuursaksies, kan hierdie potensiële impakte voorkom of verminder of tot op aanvaarbare vlakke versterk word. Sou die OBPv doeltreffend geïmplementeer word, is daar gevolglik geen biofisiese, maatskaplike of ekonomiese rede waarom die projek nie kan voortgaan nie.

SKAKELING MET BELANGHEBBERS

Die skakelingsproses met belanghebbers het vóór die indiening van die BEV (Basiese Evalueringsverslag) 'n aanvang geneem en het regdeur die omgewingsevalueringproses voortgeduur. As deel van hierdie proses het owerhede wat kommentaar lewer, sowel as Belangstellende en Geaffekteerde Partye (B&GP's), die geleentheid gekry om 'n openbare vergadering by te woon, vrae en kommentaar aan die projekspan te rig en die agtergrondinligtingsdokument en nou die BEV na te gaan. Alle kommentaar wat tot op hede deur die owerhede wat kommentaar lewer en B&GP's ingedien is, is in hierdie BEV vervat en aangespreek. Verdere kommentaar wat tydens die BEV se oorsigproses opgeduik het, is op 'n soortgelyke wyse hanteer.

Hierdie BEV sal vanaf **20 Augustus 2019 tot 20 September 2019** vir 'n 30-dae kommentaartydperk versprei word ten einde aan B&GP's 'n geleentheid te bied om kommentaar te lewer oor enige aspek van die beoogde projek en die bevindinge van die Basiese Evalueringproses. Afskrifte van die volledige verslag sal beskikbaar gestel word op SLR se webwerf (by <https://slrconsulting.com/za/slr-documents/>) en by die Joe Morolong Plaaslike Munisipaliteit, die John Taolo Gaetsewe Distriksmunisipaliteit, die Hotazel Openbare Biblioteek, Kathu Openbare Biblioteek en Black Rock Biblioteek. Elektroniese kopieë van die verslag (op kompaktskyf) is beskikbaar by SLR by die kontakbesonderhede wat hieronder verskaf word.

Alle kommentaar wat tydens die oorsigproses ontvang word, sal in die BEV aangespreek word.

SLR Consulting (Africa) (Edms.) Bpk.

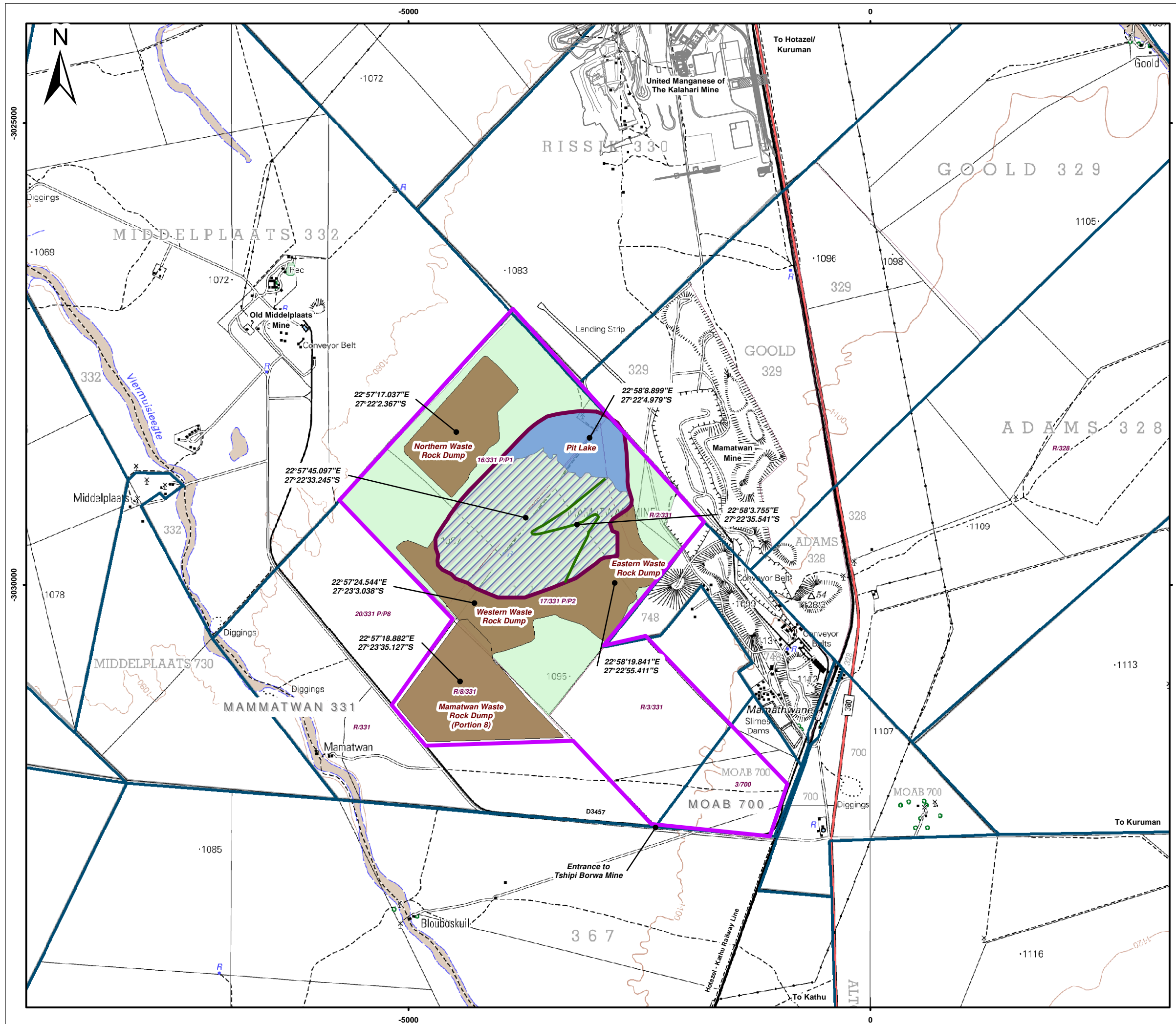
Vir aandag: Natasha Smyth

Posbus 1596, Cramerview 2060 (as u die posdiens gaan gebruik, moet u SLR asseblief bel om ons in kennis te stel van u indiening)

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Faks: 011 467 0978

E-pos: nsmyth@slrconsulting.com



- Legend**
- Tshipi Oppervlakgebruiksarea
 - Tshipi Mynregte
 - Oopgroe
 - Gelyktydige Oopgroef Storting
 - Afvalstortingsterrein
 - Toegangspad
 - Hoofpad
 - Kraglyn
 - Riviere en Strome
 - 20 m Kontoerlyne
 - Plaasgrense
 - Plaasgedeeltes

0 500 1 000 Meters
 Scale: 1:40 000 @ A3
 Projection: Transverse Mercator
 Datum: WGS1984, Lo23

Tshipi é Ntle Manganese Mining (Pty) Ltd

Figuur 1
Plaaslike Omgewing

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BYLAE B: OPSOMMING VAN KWESSIES WAT GEOPPER IS (AFDELING 7.3 VAN DIE BEV)

Belang-stellende en Geaffekteerde Party	Datum waarop kommentaar ontvang is	Kwessies geopper	Antwoord voorsien
Reguleringsowerheid			
Departement van Minerale Hulpbronne (DMH)			
Ntsundeni Ravhugoni	Kommentaar geopper by die vooraanloop-vergadering wat op 2 Mei 2019 met die DMH gehou is.	<p>Kan die oopgroef teruggevuul word nadat die ondergrondse mynbou tot 'n einde gekom het? Hierdie benadering kan as 'n alternatief geag word om die verbintenis met betrekking tot terugvulling te verander.</p> <p>As deel van die alternatiewe ondersoek, lewer ook asseblief kommentaar op die vlak van Tshipi se verantwoordelikheid vir die vier sluitingsopsies. Ons departement huldig die mening dat Tshipi se totale verantwoordelikheid met 'n volledige terugvulling minder sal wees as in die geval van 'n sluitingsopsie waar biodiversiteitshabitats gevestig word, wat onderhou en gemonitor sal moet word. As 'n oorkoepelende opmerking, sal ons wag vir die finale evaluering van die Omgewingsimpakevaluering (OIE) en OBPv vir die besonderhede rakende die spesialisbevindinge van die alternatiewe ondersoek.</p>	<p>Prakties gesproke, kan die uiteindelige gat teruggevuul word nadat die dieper hulpbron uitgemyn is, maar:</p> <ul style="list-style-type: none"> • eerstens, wanneer omgewings-, sosio-ekonomiese, tegniese, kommersiële en wetlike faktore in ag geneem word, is die volledige terugvulling van die oopgroef sub-optimaal as 'n sluitingsoplossing en 'n alternatiewe sluitings- en rehabilitasie-strategie bied geleentheid vir versterkte biodiversiteitshabitats en toegang tot oppervlaktwater; • tweedens, dit sou impliseer dat die oppervlaktafvalkliphope tydelike (ongerehabiliteerde) hope bly tot ná die sluiting van die ondergrondse myn, moontlik vir so lank as 70 jaar in die toekoms, terwyl rehabilitasie van oppervlaktafvalkliphope met slegs gelyklopende terugvulling bykans dadelik 'n aanvang kan neem; en • laastens, die ondergrondse myn is marginaal en as die toeskryfbare sluitingsaanspreeklikheid ingesluit word in die ondergrondse mysakeplan, sal die sakeplan moontlik nie meer aantreklik wees nie, d.i. die dieper (ondergrondse) hulpbron sal gesteriliseer wees. <p>'n Bespreking oor die positiewe en negatiewe impakte van elk van die alternatiewe wat oorweeg is, is vervat in die BEV. In hierdie opsie is dit belangrik om daarop te let dat daar 'n sluitingsfasemonitering en nasorgverpligting sal wees in beide die volledige terugvulling (opsie 1) en slegs gelyklopende terugvulling (in-groefstorting) (wat die opsie van voorkeur is) (opsie 3) scenario's.</p> <p>Ten opsigte van volledige terugvulling, sal die langtermynfokus grondwatermonitering wees, met aspekte van korter termyn monitering en 'n nasorgplan wat fokus op grondwatervlakke, plantegroei/ekosistevestiging en erosievoorkoming. Ten opsigte van gelyklopende terugvulling (in-groefstorting), sal die langtermynfokus op die groefmeer wees waar veldimplementering en monitering benodig word om vas te stel hoe suksesvol die drywende vleilande as 'n half-passiewe behandelingsoplossing sal wees. Voorts kan dit voortgesette monitering, vleilandinstandhouding/-vervanging, en vestiging van vlak ekosisteme in die langer termyn verg om die gehalte van die groefmeer te handhaaf vir gebruik deur lewendehawe en ekologie. Alternatiewelik, as die watergehalte op een of ander stadium ingee, sal alternatiewe behandelingstechnologieë dalk oorweeg of die gebruik van die groefmeer en toegang daartoe verander moet word. Die korter termyn aspekte van monitering en nasorgplan fokus op grondwatervlakke, plantegroei/ekosistevestiging en erosievoorkoming.</p>

Belang-stellende en Geaffekteerde Party	Datum waarop kommentaar ontvang is	Kwessies geopper	Antwoord voorsien	
Ntsundeni Ravhugoni	Kommentaar geopper by die vooraanboek-vergadering wat op 2 Mei 2019 met die DMH gehou is.		<p>Met inagneming van die bogenoemde, is ná-sluitingsmonitering en nasorginstandhouding meer ekstensief (meer aspekte wat monitering verg) en die tydsduur van die ná-sluitingsverpligtinge met die gelyklopende (in-groefstorting) alternatief van voorkeur verleng in vergelyking met volledige terugvulling.</p> <p>Dit is egter belangrik om daarop te let dat die vlak van verantwoordelikheid net een aspek was wat in die ontleding van alternatiewe oorweeg is, soos uiteengesit in Afdeling 7.5 van die BEV. In hierdie opsig, wanneer alle omgewings-, maatskaplike, tegniese (insluitend vlak van verantwoordelikheid), wetlike en kommersiële faktore as geheel oorweeg word, is die opsie van voorkeur gelyklopende terugvulling (in-groefstorting). Voorts, om nie die projek voort te sit nie, beteken dat die groef volledig teruggevuul en gerehabiliteer sal moet word tot 'n eindtoestand van weiding/wildernis en gevolglik sal die ekonomiese byvoordele en biodiversiteitsverbeterings nie verwesenlik word nie.</p>	
Owerhede wat kommentaar lewer				
Departement van Water en Sanitasie				
Fhatuwani Magonono	Kommentaar geopper by 'n fokusvergadering wat op 21 Junie 2019 gehou is	'n Aansoek is onlangs by ons departement ingedien vir wysigings aan die bestaande Aansoek om Geïntegreerde Watergebruik vir Tshipi. Sal die aansoek wat met hierdie beoogde projek verband hou, deel vorm van die wysiging wat tans by die departement is om verwerk te word, of sal 'n aparte aansoek gebring word?	As deel van die beoogde projek, is die afvalkliphope wat op die oppervlak sal bly en terugvulling van die oopgroef watergebruike ingevolge Artikel 21(g) van die NWW vir die wegdoening van afval op 'n wyse wat 'n negatiewe impak op waterhulpbronne kan hê. Hierdie watergebruike vorm hetsy deel van die bestaande WUL of word in die IWUL-wysigingsaansoek geïnkorporeer wat tans by u departement is vir verwerking. Hoewel hierdie fasiliteite/aktiwiteite verband hou met die beoogde projek, vorm hierdie watergebruike deel van die huidige mynboubedrywigheede wat magtiging verg. Gevolglik is daar geen spesifieke vereiste vir Tshipi om 'n watergebruiklisensie by die DWS ingevolge die NWW vir die beoogde projek te bekom nie. Ná sluiting sal die tersaaklike grondgebruiker die nodigheid vir 'n watergebruiklisensie moet hersien, afhangend van die verwante toekomstige gebruik van die waterhulpbron. Dit kan 'n onttrekkingslisensie insluit om water uit die groefmeer te gebruik.	
		Die Departement van Water en Sanitasie sal die gebruik van afvalklip om die oopgroef mee terug te vul, moet magtig ingevolge Artikel 21(g) van die Nasionale Waterwet (Wet 36 van 1998).		Tans word van Tshipi verlang om hul oopgroef volledig terug te vul, ooreenkomstig hul goedgekeurde OBPV's (SLR, Augustus 2017 en SLR, April 2019). Voor die aanvang van die beoogde projek, sal magtiging van die DMH verlang word om die goedgekeurde terugvulverbintenisse te verander na slegs gelyklopende terugvulling (in-groefstorting).
		Is die terugvulling gemagtig deur die Departement van Minerale Hulpbronne?		
		Waarom 'n groefmeer skep? Waarom rehabiliteer julle nie die hele groef nie?		As deel van die beoogde projek, is die doelwit om 'n volhoubare sluitingsgrondgebruik daar te stel wat neerkom op 'n kombinasie van natuurlike habitatvestiging (akwaties en terrestriëel) en lewendehawesuijing met gepaardgaande weidingspotensiaal. Dit kan verwesenlik word deur toegang tot water in die groefmeer. As die groef volledig teruggevuul word, sal dit nie moontlik wees om 'n groefmeer te vestig nie en die biodiversiteitsverbeterings sal nie verwesenlik word nie.
		Wat sal die nut van daardie water wees?		

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Fhatuwani Magonono	Kommentaar geopper by 'n fokusvergadering wat op 21 Junie 2019 gehou is		Dit is belangrik om daarop te let dat bykomende konsepte op een of ander stadium as potensiële toekomstige bykomende grondgebruike oorweeg kan word, wat die gebruik van water in die groefmeer kan verg. Met verwysing na Afdeling 3.2.9 van die BEV, sluit dit aggremaatvergruising en -sifting, akwaponika en intensiewe weiding in. Hierdie bykomende grondgebruike word nie spesifiek as deel van die beoogde projek geëvalueer nie, aangesien hierdie potensiële grondgebruike is wat oorweeg kan word.
		Die groefmeerwater sal besoedel wees weens die afvalkliphope? Dit sal op die ou einde in die grondwater insyfer.	As deel van die beoogde projek, was 'n onafhanklike hidroloog, geohidroloog en geochemici aangestel om die impakte te verstaan wat verband hou met die ontwikkeling van die groefmeer. In hierdie opsig het spesialisondersoeke getoon dat watergehalte in die groefmeer sonder passiewe behandeling vir tot 100 jaar geskik sou wees vir doeleindes van lewendehawesuiping, maar daarna sal die een of ander soort drywende vleilandbehandeling benodig word. Spesialiste het dus die gebruik van drywende vleilande aanbeveel vir die passiewe behandeling van watergehalte in die groefmeer. Die voorspelde modelleringsuitslae van watergehalte van die groefmeer met die installering van drywende vleilande, dui daarop dat die watergehalte aanvaarbaar is vir lewendehawesuiping en die vestiging van 'n akwatiese habitat vir minstens 200 jaar (die gemodelleerde tydperk). Soortgelyke watergehalte kan dalk vir langer as die gemodelleerde tydperk van 200 jaar verwesenlik word, en veldproewe wat met bykomende modellering aangevul is, word vir deurlopende verfyning van die ontwerp aanbeveel. Benewens die bogenoemde, is die impak wat verband hou met besoedeling van grondwater as deel van die beoogde projek geëvalueer. In hierdie opsig sal die groefmeer as 'n sink optree, omdat die groefmeervlak bestendigheid onder die tersaaklike grondwatervlak sal bereik. Dit beteken dat grondwater na die groefmeer toe sal vloei en nie van die groefmeer af uitwaarts nie. Voorspelde modelleringsuitslae het aangedui dat geen impakte op enige eksterne derdeparty boorgate verwag word nie.
		Maak asseblief seker dat ná-sluitingsmonitering gedoen word?	'n Ná-sluitingsmoniteringsprogram is vir die beoogde projek ontwikkel en word uiteengesit in Afdeling 28 van hierdie verslag.
		Sal die groef uitstort?	Die groefmeervlak sal sowat 35 m onder grondvlak bestendigheid bereik. Gevolglik is daar geen risiko van 'n groefstorting nie.
		Het u 'n afvalklassifikasiestudie gedoen?	Afvalevaluerings is as deel van vorige projekte vir die Tshipi Borwa-myn gedoen. In hierdie verband is afvalevaluerings onderneem ingevolge Regulasie 5 van Staatskennisgewing R632 van die NEM:WA, wat sê dat afvalklipvoorraadstapels geklassifiseer moet word met inagneming van Regulasie 8 van Staatskennisgewing R634 van 2013, wat verwys na die volgende verwante Nasionale Norme en Standaarde: <ul style="list-style-type: none"> Die Nasionale Norme en Standaarde vir die evaluering van afval vir wegdoening na 'n

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Fhatuwani Magonono	Kommentaar geopper by 'n fokusvergadering wat op 21 Junie 2019 gehou is	<p>Die mees kritiese deel ten opsigte van hierdie aansoek sal die geohidroloog se verslag wees, wat die modellering van die pluim en die monitering van boorgate (ná-sluitingmonitering) beide naby en stroomaf moet dek.</p>	<p>stortingsterrein (Staatskennisgewing R635 van 2013); en</p> <ul style="list-style-type: none"> Die Nasionale Norme en Standaard vir die wegdoening van afval na 'n stortingsterrein (Staatskennisgewing R636 van 2013). <p>Golder Associates het 'n afvalevaluering onderneem vir afvalklip (Golder, 2016) wat by die Tshipi Borwa-myn gegeneer word. Die voorlopige uitslae van die afvalevaluering dui daarop dat afvalklip as 'n Tipe 1-afval geklassifiseer word, wat 'n Klas A-voering vereis, wat bestaan uit 'n gekompakteerde kleivoering, uitloogselopsporing, geotekstielfilms en geotekstielfilters. In Junie 2016, het die DWS 'n voorstel deur die Suid-Afrikaanse Kamer van Mynwese aanvaar om 'n risikogebaseerde benadering te volg op 'n per-geval-grondslag om voorsiening te maak vir verhoë oor alternatiewe sperderstelsels vir Mynresidueerlae en -voorraadstapels (29 Junie 2016).</p> <p>Golder het aanbeveel, via 'n formele motiveringsbrief aan die DWS, dat 'n Klas D-voering (afstroping van bogrond en voorbereiding van basis) om die volgende redes as gepas geag word vir die beoogde afvalkliphope by die Tshipi Borwa-myn:</p> <ul style="list-style-type: none"> 'n Klas A-voering is onprakties vir 'n afvalkliphoop op grond van die geotegniese eienskappe, gegewe dat die voering waarskynlik sal ingee; die uitloogbare konsentrasies van al die bestanddele is onder die LCTO-perk, wat dui op 'n lae syferingsrisiko; die afvalklipmateriaal sal droog wees en bevat nie afvalwater nie; en die afvalklipmateriaal is nie gevaarlik nie en genereer nie suur nie. <p>Grondwatermodellering is vir Tshipi onderneem. Hierdie modellering maak voorsiening vir 'n ergste-geval teoretiese scenario, wat insluit 'n volledig teruggevalde oopgroef met alle afvalkliphope wat op die oppervlak bly. Dit maak voorsiening vir veelvuldige bronne van besoedeling en hervestiging van byna normale grondwatervloei. In werklikheid sal die beoogde sluitingsopsie die deels teruggevalde groef insluit wat as 'n hidrouliese sink optree, met 'n aftreккеël na die groefmeer toe tot in alle ewigheid. Die rede vir die gebruik van die konserwatiewe teoretiese modelleringsscenario, is die omsigtigheidsbeginsel wat tersaaklik is weens die belangrikheid om grondwaterrisiko in hierdie besonder droë streek te verstaan. Besonderhede met betrekking tot die grondwatermodel is vervat in die Groefmeerverslag wat ingesluit is in Bylae H van die BEV. 'n Gedetailleerde bespreking van die modelleringsuitslae van grondwaterimpakte en die besoedelingspluim, word voorsien in Bylae E van die BEV.</p> <p>'n Ná-sluitingsmoniteringsprogram is vir die beoogde projek ontwikkel en word uiteengesit in Afdeling 28 van die BEV.</p>

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Fhatuwani Magonono	Kommentaar geopper by 'n fokusvergadering wat op 21 Junie 2019 gehou is		
Departement van Omgewings- en Natuurbewaring en Departement van Omgewingsake, Bosbou en Visserye			
Jacoline Mans – DAFF	Kommentaar geopper by 'n fokusvergadering wat op 27 Junie 2019 gehou is	Sal die water uit die groefmeer skoon wees, sal dit nie besoedel wees nie?	As deel van die beoogde projek, was 'n onafhanklike hidroloog, geohidroloog en geochemici aangestel om die impakte te verstaan wat verband hou met die ontwikkeling van die groefmeer. In hierdie opsig het spesialisondersoeke getoon dat watergehalte in die groefmeer sonder passiewe behandeling vir tot 100 jaar geskik sou wees vir doeleindes van lewendehawesuiping, maar daarna sal die een of ander soort drywende vleilandbehandeling benodig word. Spesialiste het dus die gebruik van drywende vleilande aanbeveel vir die passiewe behandeling van watergehalte in die groefmeer. Die voorspelde modelleringsuitslae van watergehalte van die groefmeer met die installering van drywende vleilande, dui daarop dat die watergehalte aanvaarbaar is vir lewendehawesuiping en die vestiging van 'n akwatiese habitat vir minstens 200 jaar (die tydperk van modellering). Soortgelyke watergehalte kan dalk vir langer as die gemodelleerde tydperk van 200 jaar verwesenlik word, en veldproewe wat met bykomende modellering aangevul is, word vir deurlopende verfyning van die ontwerp aanbeveel.
		Met betrekking tot beskermde bome en plante, hoe sal die voetspoor verskil van wat tans gemagtig is? Sal julle hope nie groter raak ten opsigte van oppervlakgebied nie? Sal hulle nie 'n impak op tans onversteurde gebiede hê nie?	Die rehabilitasie van die afvalkliphope sal vorming insluit om te verseker dat die gebiede vry dreineer en die rante sal skuins afloop soos vereis word om voorsiening te maak vir die optimale hervestiging van plantegroei. As deel van die glooiing van die afvalkliphope, kan van die tans onversteurde gebiede wel beïnvloed word. Dis belangrik om daarop te let dat Tshipi steeds daartoe verbind is om bestuursaksies in werking te stel soos uiteengesit in die goedgekeurde OBPv's (SLR, Augustus 2017 en April 2019). As enige beskermde bome of plantspesies as deel van die rehabilitasie van die afvalkliphope verwyder moet word, sal die nodige boom- en/of plantverwyderingspermitte gevolglik by die DAFF en/of DENC bekom moet word. Sien ook Afdeling 3.2.7.2 van die BEV vir die herbeplantingsplan wat poog om belangrike habitats en verwante bome te hervestig.
		So u huidige afvalkliphope is nie gerehabiliteer nie?	Die tans goedgekeurde OBPv vereis dat Tshipi die oopgroef volledig moet terugvul. In hierdie scenario, met dié dat afvalklip in die oopgroef teruggevul sal word, word geen afvalkliphope wat tans op die oppervlak is dus gerehabiliteer nie. Sodra die afvalklip in die oopgroef teruggevul is, sou rehabilitasie van die oppervlak 'n aanvang neem. As deel van die beoogde projek, sal van die afvalklip tot in ewigheid op die oppervlak bly. Gevolglik sal die beoogde projek die vroeëre rehabilitasie van afvalkliphope as deel van

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Jacoline Mans – DAFF	Kommentaar geopper by 'n fokusvergadering wat op 27 Junie 2019 gehou is		voortgesette bedrywighede moontlik maak, wat die toestand van rehabilitasie met sluiting sal verbeter.
		Met betrekking tot alternatiewe grondgebruik op die permanente hope, is dit nie moontlik om sonkragaanlegmaatskappye te nooi om hul sonpanele op die permanente hope te plaas, pleks daarvan om die natuurlike veld langs die myn te versteur nie?	As deel van die beoogde projek, is die doelwit om 'n volhoubare sluitingsgrondgebruik daar te stel wat neerkom op 'n kombinasie van natuurlike habitatvestiging (akwaties en terrestriel) en lewendehawesuiping met gepaardgaande weidingspotensiaal. Bykomende konsepte kan op 'n stadium oorweeg word as potensiële toekomstige bykomende grondgebruike. Met verwysing na Afdeling 3.2.9.4 van die BEV, is voorsiening gemaak vir die oorweging van oprigting van sonkragaanlegte bo-op bestaande afvalkliphope.
		Met betrekking tot u bestaande Omgewingsmagtiging, was daar nie iets oor teenwigte (<i>offset</i>) wat Tshipi moes doen nie? Is 'n biodiversiteitteenwig nie reeds 'n voorwaarde in die Omgewingsmagtiging nie?	Die bestaande omgewingsmagtigings waaroor Tshipi beskik, dui nie spesifiek aan dat 'n biodiversiteitteenwig benodig word nie. Die goedgekeurde OBPV's (SLR, Augustus 2017 en April 2019) het egter aangedui dat Tshipi daartoe verbind is om 'n teenwig te implementeer, sou die DAFF dit benodig.
		Maar, daar is 'n bord wat lui " <i>Tshipi biodiversity offset area</i> ", ek is nie seker of dit steeds daar is nie?	Tshipi weet van die bord waarna u verwys. Dit moes nie opgerig gewees het nie en planne word gemaak om die bord te verwyder. Geen teenwiggebied is nog geïdentifiseer nie.
Samantha de la Fontaine – DENC		Kan u die teenwigersondersoekverslag vir DAFF en DENC aanstuur?	Tshipi sal sorg dat dit gedoen word.
Jacoline Mans – DAFF		Stuur asseblief vir DAFF en DENC 'n elektroniese kopie (CD) van die BEV.	Ons maak so.
Suid-Afrikaanse Erfenishulpbronagentskap			
Natasha Higgitt – SAHRA	Kommentaar ontvang van die SAHRIS-webwerf op 30 Julie 2019	Aangesien die beoogde ontwikkeling 'n OM-aansoekproses ingevolge die Nasionale Wet op Omgewingsbestuur, Wet 107 van 1998 (NEMA) en die Regulasies op Omgewingsimpakevaluering (OIE-regulasies) ondergaan vir aktiwiteite wat aanleiding gee tot die aktivering van die Wet op die Ontwikkeling van Minerale en Petroleum Hulpbronne, Wet 28 van 2002 (MPRDA) (soos gewysig), berus die onus op die ontwikkelaar om toe te sien dat 'n Erfenissimpakevaluering (EIE) ingevolge Artikel 38(3) en 38(8) van die Nasionale Wet op Erfenishulpbronne, Wet 25 van 1999 (NHRA), gedoen word. Dit sluit gewoonlik 'n argeologiese en paleontologiese komponent en enige ander	As deel van die beoogde projek, was 'n erfenisspesialis geraadpleeg. Die spesialis het bevestig dat daar geen erfenishulpbronne in die Tshipi Borwa-myn is nie end at die voorgestelde projek nie erfenishulpbronne sal beïnvloed nie. Wat paleontologiese hulpbronne betref het die spesialis bevestig dat daar is 'n lae moontlikheid van paleontologiese hulpbronne in die projek area. Dit is egter belangrik om daarop te let dat in die geval van 'n kans kry, sal die SAHRA in kennis gestel word en waar nodig permitte voor versteuring te kry.

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Natasha Higgitt – SAHRA	Kommentaar ontvang van die SAHRIS-webwerf op 30 Julie 2019	<p>toepaslike erfeniskomponente in. Die EIE moet as deel van die OM-aansoek ingevolge NEMA en die NEMA OIE-regulasies gedoen word.</p> <p>Aangesien die beoogde ontwikkelingsgebied hoogs versteur is, kan die evaluering oor die impak op erfenis neerkom op 'n Skrywe van Aanbeveling vir Vrystelling ten opsigte van verdere erfenisstudies ten einde te voldoen aan Artikel 38(8) van die NHRA. Raadpleeg www.asapa.co.za of www.aphp.org.za vir spesialiste wat so 'n verslag sal kan voorsien. Daar word na die Skrywe verwys in die SAHRA 2007 Minimumstandaarde: Argeologiese en Paleontologiese Komponent van Impakevaluering.</p> <p>Die beoogde ontwikkelingsgebied is geleë in 'n gebied van matige sensitiwiteit volgens die SAHRIS <i>PalaeoSensitivity</i>-kaart. Die AID meld dat daar dalk stromatoliete in die gebied kan wees. 'n Kantoorgebonde Paleontologiese Impakevaluering (PIE) moet onderneem word om te evalueer of die ontwikkeling 'n impak op paleontologiese hulpbronne sal hê, al dan nie (raadpleeg as seblief https://www.palaeosa.org/heritage-practitioners.html vir 'n lys met paleontologiese praktisyns). Die PIE moet voldoen aan die SAHRA 2012 Minimumstandaarde: Paleontologiese Komponent van Erfenisimpakevaluering. Die aangestelde paleontoloog kan ook besluit om 'n Skrywe van Aanbeveling vir Vrystelling in te dien, soos genoem in die 2012 Minimumstandaarde.</p> <p>Enige ander erfenishulpbronne soos omskryf in Artikel 3 van die NHRA wat dalk geraak kan word, soos geboude strukture ouer as 60 jaar, terreine van kulturele belang wat verband hou</p>	

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		met oorleeringsgeskiedenis, begraafplase en grafte, grafte van slagoffers van konflik en kultuurlandskappe of besienswaardighede, moet ook geëvalueer word.	
		Die konsep BEV en bylaes moet aan die begin van die openbare insaeproses ingedien word sodat ingeligte kommentaar gelewer kan word.	Ons maak so.
Belangstellende en Geaffekteerde Party			
Moses Moalani (Care for Nature, NRO)	Kommentaar geopper by 'n openbare vergadering wat op 26 Junie 2019 gehou is	Gebruik Tshipi sy eie water of kry dit water by die Vaal Gamagara?	Tshipi kry tans water by die Vaal Gamagara Watervoorsieningspyplyn. Tshipi het onlangs 'n aansoek om 'n watergebruiklisensie by die DWS ingedien om onttrekking van grondwater uit boorgate wat by Tshipi Borwa-myn geleë is, te magtig. Hierdie aansoek is nog hangende. Dit sal bykomend tot die Vaal Gamagara water wees.
		Kry julle water uit boorgate?	
		Beoog julle om die oopgroef te rehabiliteer?	Ja. Rehabilitasie van die groef word beplan om te verseker dat 'n volhoubare sluitingsgrondgebruik, wat neerkom op 'n kombinasie van natuurlike habitatvestiging (akwaties en terrestriel) en lewendehawesuiping met gepaardgaande weidingspotensiaal, verweselik word.
		Is die lisensie vir sluiting slegs vir hierdie gedeelte (oopgroef)?	Die sluitingslisensie sal vir die hele gebied wees wat tans in die Tshipi oppervlakgebruikgebied val.
		Sal daar nog 'n openbare vergadering wees?	Daar is geen plan om nog 'n vergadering te hou nie, tensy dit spesifiek deur B&GP's versoek word.
		Is departementsamptenare na hierdie openbare vergadering toe genooi?	As deel van die beoogde projek is 'n databasis vir openbare betrokkenheid ontwikkel. Hierdie databasis sluit in grondeienaars, omliggende grondeienaars, grondgebruikers, wyksraadslede, owerhede wat kommentaar lewer, besluitnemingsowerhede, nywerhede, omliggende mynboubedrywighe en NRO's. Almal wat op die databasis ingesluit is, is in kennis gestel van die beoogde projek en is voorsien van die besonderhede van die openbare vergadering en vergadering met owerhede wat kommentaar lewer. 'n Afskrif van die openbare betrokkenheidsdatabasis en bewys van kennisgewing van B&GP's van die openbare vergadering en vergadering met owerhede wat kommentaar lewer, is ingesluit in Bylae D van die BEV.
		Was grondeienaars ook bewus gemaak van die vergadering?	Fokusvergaderings is gereël met die DWS, DAFF en DENC as belangrike owerhede wat kommentaar lewer. Afskrifte van die notules van hierdie fokusvergaderings is ingesluit in Bylae D van die BEV. Kwessies en knelpunte wat DWS, DAFF en DENC tydens die fokusvergaderings geopper het, is in hierdie tabel van kwessies ingesluit.
	Hoe monitor julle luggehalte?	Daar is 'n netwerk vir die monitering van stofuitsakkings by die Tshipi Borwa-myn. In hierdie verband dui moniteringsuitslae daarop dat mynbou en omliggende aktiwiteite en infrastruktuur bydra tot bronne van emissies, soos stofuitsakking en PM10 wat van tyd tot tyd	

Belang-stellende en Geaffekteerde Party	Datum waarop kommentaar ontvang is	Kwessies geopper	Antwoord voorsien
Moses Moalani (Care for Nature, NRO)	Kommentaar geopper by 'n openbare vergadering wat op 26 Junie 2019 gehou is		toepaslike NAAQS- en NDCR-perke oorskry.

**Proof of
distribution of
the BAR to I&APs
and commenting
authorities.**

**BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR
THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Welma Meyer

in my capacity as a representative of

M Meyer

have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

2x Hardcopies of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	
20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	

Date: *20/08/2019*

M Meyer
Signature/ Stamp:



BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

_____ in my capacity as a representative of

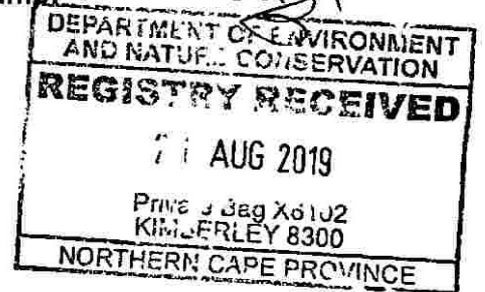
have received the following documents:

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1 Hardcopy of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input type="checkbox"/>
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20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input type="checkbox"/>

Date: 20/08/19

Signature/ Stamp: H. Hlatkoti





BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

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Date: 20/08/2019


Signature/ Stamp:

DEPARTMENT OF MINERAL RESOURCES
 PRIVATE BAG X6093
 KIMBERLEY 8300
 2019 -08- 20
 RECEPTION/RISK
 DEPARTMENT OF MINERAL RESOURCES



BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

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DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Ryan Oliver

in my capacity as a representative of

have received the following documents:

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1 Hardcopy of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	
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20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	

Date: 20/08/19

Signature/ Stamp:

REPUBLIC OF SOUTH AFRICA
 COMMUNICATIONS REGULATORY AUTHORITY
REGISTRY
 2019-08-20
 Unit 27,
 Linden Road, Kimberley
 Western Cape
 Tel: 053 831 6501 Fax: 053 831 6501



BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Elien Booysse

in my capacity as a representative of

have received the following documents:

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20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	

Date: *2019-08-20*

Signature/ Stamp:

Elien Booysse

DEPT. WATER AFFAIRS NORTHERN CAPE REGION Private Bag/Privaatsak X6101
2019 -08- 20
KIMBERLEY 8300 NOORDKAAPSTREEK
DEPT. VAN WATERWESE

**BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR
THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Thembela, Sukazi

in my capacity as a representative of

MOTAZEL PUBLIC LIBRARY

have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

2x Hardcopies of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	X
20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	X

Date: 26/08/2019

Signature/ Stamp:

Sukazi





**BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR
THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Reitumetse Setlwa

in my capacity as a representative of

Joe Morolong Local Municipality

have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

1 Electronic copy (CD) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	
--	--

Date:.....*20/08/19*.....

Signature/ Stamp: *Reitumetse Setlwa*

**BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR
THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

MASEGO MORWAGAE

in my capacity as a representative of

JOE MORONG LOCAL MUNICIPALITY

have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

2x Hardcopies of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	
20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	

Date: 20/08/2019



Signature/ Stamp:

**BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR
THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Pelontle Confidence Rapelang
in my capacity as a representative of

John Taolo Gaetsewe District Municipality
have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

2x Hardcopies of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	
20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	

Date: 20/08/2019

Signature/ Stamp: 

**BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR
THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE**

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

Mabelane Petronella

in my capacity as a representative of

Kathu Library

have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

2x Hardcopies of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input type="checkbox"/>
20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input type="checkbox"/>

Date: *20/08/2019*


 Signature/ Stamp:



BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BAR AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

This is to certify that I

BONSANI FINZA

in my capacity as a representative of

have received the following documents:

PLEASE COMPLETE AND TICK RELEVANT BOX

1 Hardcopy of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input checked="" type="checkbox"/>	<i>B.F.</i>
1 Electronic copy (CD) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input checked="" type="checkbox"/>	<i>B.F.</i>
20 copies of the summary (10 English, 10 Afrikaans) of the Basic Assessment Report and Environmental Management programme Report for the alternative closure and rehabilitation project at the Tshipi Borwa Mine	<input checked="" type="checkbox"/>	

Date: *21/08/2019*

DEPT. VAN LANDBOU, BOSBOERIE EN WATERSKAP

2019 -08- 21

PO BOX 2782, UPINGTON 8800
TEL: 054 338 5801/09/10 FAX: 054 334 0030

DEPT. OF AGRICULTURE, FISHERIES & FORESTRY

Signature/ Stamp: *B. Finza*

Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 01:58 PM
To: ryan.oliver@drdlr.gov.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

Dear Department of Rural Development and Land Reform,

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province. The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:

- The opportunities for enhanced biodiversity habitats with a different backfill approach particularly in terms of topographic variety and access to surface water;
- The opportunities for enhanced land use increase with access to surface water; and
- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

In addition to the above, completely backfilling the open pit is likely to sterilise an underground resource located to the north of the current approved open pit. The associated loss of employment, procurement, taxes and foreign exchange earnings is significant and will be a material net loss to the region and the country.

Tshipi is therefore proposing to change the current closure commitment to achieve a more sustainable and optimised outcome. In this regard, the proposed project focusses on:

- Concurrent backfill only i.e. in-pit dumping during mining operations only;
- Sloping and rehabilitation of waste rock dumps remaining on surface;
- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

SLR Consulting (Africa) (Pty) Ltd (SLR), an independent firm of environmental assessment practitioners, has been appointed by Tshipi to manage the environmental authorisation processes. In this regard, the Basic Assessment Report (BAR) for the proposed project is now available for public and commenting authority review. Full copies of the BAR are available at the following places:

- The Joe Morolong Local Municipality
- The John Taolo Gaetsewe District Municipality
- The Hotazel Public Library
- The Kathu Public Library

- The Black Rock Library.

The Basic Assessment Report (BAR) is also available from the SLR website (at <https://slrconsulting.com/za/slr-documents/>). Alternatively, electronic copies of the BAR will be made available to I&APs on request. Please note that an electronic copy of the full BAR has been sent to your department.

The BAR is available for a 30 day comment period until **20 SEPTEMBER 2019** in order to provide I&APs with an opportunity to comment on any aspect of the proposed project and the findings of the Basic Assessment process. All comments need to be submitted in writing to SLR via fax (011 467 0978) and/or email (nsmyth@slrconsulting.com). All received comments will be included in the final BAR which will be made available to the Department of Mineral Resources for decision making purposes

A summary of the BAR has also been prepared and is attached (English and Afrikaans) for your perusal.

Kind regards

Gugu Dhlamini



Gugu Dhlamini

ESIA Intern

+27 11 467 0945

2021

gdhlamini@slrconsulting.com

SLR Consulting (Africa) (Pty) Ltd
Unit 7
Fourways Manor Office Park
1 MacBeth Avenue
Fourways, Johannesburg, Gauteng, 2191



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This communication and any attachment(s) contain information which is confidential and may also be legally privileged. It is intended for the exclusive use of the recipient(s) to whom it is addressed. If you have received this communication in error, please email us by return mail and then delete the email from your system together with any copies of it. Any views or opinions are solely those of the author and do not represent those of SLR Management Ltd, or any of its subsidiaries, unless specifically stated.

Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:00 PM
To: nhiggitt@sahra.org.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

Dear South African Heritage Resources Agency,

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province. The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:

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A summary of the BAR has also been prepared and is attached (English and Afrikaans) for your perusal.

PLEASE NOTE THAT WE HAVE OPENED UP A CASE FILE AND WILL UPLOAD THE BAR ONTO SAHRIS. THIS EMAIL HAS BEEN SENT FOR RECORD KEEPING PURPOSES

Kind regards

Gugu Dhlamini



Gugu Dhlamini

ESIA Intern

+27 11 467 0945

2021

gdhlamini@slrconsulting.com

SLR Consulting (Africa) (Pty) Ltd
Unit 7
Fourways Manor Office Park
1 MacBeth Avenue
Fourways, Johannesburg, Gauteng, 2191



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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:04 PM
To: JacolineMa@daff.gov.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD
BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

Dear Department of Agriculture, Forestry and Fisheries,

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province. The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:

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- Access to readily available future water supply; and
- Optimisation of the surface landforms and partially backfilled pit from a biodiversity, rehabilitation, land use and pollution prevention perspective.

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Kind regards

Gugu Dhlamini



Gugu Dhlamini

ESIA Intern

+27 11 467 0945

2021

[gdhlamini@slrconsulting.com](mailto:gdlamini@slrconsulting.com)

SLR Consulting (Africa) (Pty) Ltd
Unit 7
Fourways Manor Office Park
1 MacBeth Avenue
Fourways, Johannesburg, Gauteng, 2191



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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:08 PM
To: magononof@dws.gov.za; ramugondov@dws.gov.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

Dear Department of Water and Sanitation,

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province. The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:

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- An alternative closure option will allow for earlier rehabilitation of waste rock dumps.

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- Concurrent backfill only i.e. in-pit dumping during mining operations only;
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A summary of the BAR has also been prepared and is attached (English and Afrikaans) for your perusal.

Kind regards

Gugu Dhlamini



Gugu Dhlamini

ESIA Intern

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2021

gghlamini@slrconsulting.com

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1 MacBeth Avenue
Fourways, Johannesburg, Gauteng, 2191



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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:10 PM
To: Tmthombeni@ncpg.gov.za; gletimela@ncpg.gov.za; mokonopin@gmail.com; nmokonopi@ncpg.gov.za; sdelafontaine@gmail.com
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

Dear Department of Environmental and Nature Conservation,

Tshipi é Ntle Manganese Mining (Pty) Ltd (Tshipi) operates the Tshipi Borwa Mine located on the farms Mamatwan 331 and Moab 700, located approximately 18 km to the south of Hotazel in the John Taolo Gaetsewe District Municipality in the Northern Cape Province. The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent optimisation investigations indicate that when considering environmental, socio-economic, technical, commercial and legal factors, completely backfilling the open pit is sub-optimal. An alternative closure and rehabilitation strategy offers:

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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:14 PM
To: juliakatong2@gmail.com; Jmmasela66@gmail.com
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

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BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:22 PM
To: mm@joemorolong.gov.za; mmorwagae@joemorolong.gov.za;
leutlwetsed@joemorolong.gov.za; sseleka@webmail.co.za;
sseleka@joemorolong.gov.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

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BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

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ESIA Intern

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- 📅 2021
- ✉ gdhlamini@slrconsulting.com

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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:24 PM
To: mmsec@taologatsewe.gov.za; matlhareTH@taologatsewe.gov.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaa....pdf; Tshipi Summary of alternative closure and rehabilitation project English....pdf

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BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 02:38 PM
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaa....pdf; Tshipi Summary of alternative closure and rehabilitation project English....pdf
Bcc: krugersoret@yahoo.com; james@tshipi.co.za; nthabeleng@tshipi.co.za; derick.korff@south32.net; Alex.mooya@south32.net; ndarap@eskom.co.za; Gerrie.vanschalkwyk@eskom.co.za; Benito.williams@eskom.co.za; khanyen@eskom.co.za; ludekefj@eskom.co.za; vgenseal@eskom.co.za; dbruiner@eskom.co.za; Sam.fiff@transnet.net; cabangile.zulu@transnet.net; tsteyn@lantic.net; andriesmvdb@gmail.com; anfour@absamail.co.za; mmvanwyk10@gmail.com; camel@vodamail.co.za; mase.rantsieng@south32.net; Cupido.Love@UMK.co.za; Tshivhangwaho.Mudau@umk.co.za; daniel@solafuture.co.za

TSHIPI É NTLÉ MANGANESE MINING (PTY) LTD

BASIC ASSESSMENT REPORT AND ENVIRONMENTAL MANAGEMENT PROGRAMME REPORT FOR THE ALTERNATIVE CLOSURE AND REHABILITATION PROJECT AT THE TSHIPI BORWA MINE

BASIC ASSESSMENT REPORT AVAILABLE FOR PUBLIC AND COMMENTING AUTHORITY REVIEW

DMR REFERENCE NUMBER: NC-00156-MR/102

Dear Interested and/or Affected Party

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Kind regards

Gugu Dhlamini



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Gugu Dhlamini

From: Gugu Dhlamini
Sent: 20 August 2019 01:55 PM
To: fortunec@agri.ncpg.gov.za; cfortune@agri.ncape.gov.za
Subject: Tshipi - Alternative closure and rehabilitation project - Basic Assessment Report Available for review
Attachments: Tshipi summary of alternative closure and rehabilitation project Afrikaans.pdf; Tshipi Summary of alternative closure and rehabilitation project English.pdf

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DMR REFERENCE NUMBER: NC-00156-MR/102

Dear Department of Agriculture and Land Reform,

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Phonenumber	"Network"	"Status"	"SubmittedDate"
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CaseID: 13996

Date: Tuesday July 30, 2019
Page No: 1

Interim Comment

In terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Tshipi é Ntle Manganese Mining (Pty) Ltd

331 Mamatwan Farm

Kathu

Northern Cape

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio economic, technical, commercial and legal factors, completely backfilling the open pit is suboptimal. Northern Cape.

Thank you for notifying SAHRA of the Environmental Authorisation (EA) AND Closure and Rehabilitation Optimisation Project at the Tshipi Borwa Mine, near Hotazel, Northern Cape Province.

As the proposed development is undergoing an EA Application process in terms of the National Environmental Management Act, 107 of 1998 (NEMA), NEMA Environmental Impact Assessment (EIA) Regulations for activities that trigger the Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA)(As amended), it is incumbent on the developer to ensure that a **Heritage Impact Assessment (HIA)** is done as per section 38(3) and 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA). This usually includes an archaeological component, palaeontological component and any other applicable heritage components. The HIA must be conducted **as part of the** EA Application in terms of NEMA and the NEMA EIA Regulations.

As the proposed development area is highly disturbed, the assessment to the impact of heritage may be reduced to a Letter of Recommendation of Exemption for further heritage studies in order to comply with section 38(8) of the NHRA. See www.asapa.co.za or www.aphp.org.za for specialists who will be able to provide such a report. The letter is referred to in the SAHRA 2007 Minimum Standards: Archaeological and Palaeontological Component of Impact Assessments.

The proposed development area is located within an area of moderate sensitivity as per the SAHRIS PalaeoSensitivity map. The BID notes that stromatolites may be present in the area. A desktop Palaeontological Impact Assessment must be undertaken to assess whether or not the development will

TSHIPI ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT

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impact upon palaeontological resources (please see <https://www.palaeosa.org/heritage-practitioners.html> for a list of palaeontological practitioners). The PIA must comply with the SAHRA 2012 Minimum Standards: Palaeontological Component of Heritage Impact Assessments. The appointed palaeontologist may also choose to submit a Letter of Recommendation for Exemption as noted in the 2012 Minimum Standards.

Any other heritage resources as defined in section 3 of the NHRA that may be impacted, such as built structures over 60 years old, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict, and cultural landscapes or viewsapes must also be assessed.

The draft BAR and appendices must be submitted at the start of the public review process so that an informed comment can be issued.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency

Phillip Hine
Acting Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

TSHIPI ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT

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ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/525182>
(DMR - NC, Ref:)

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CaseID: 13996

Date: Monday September 16, 2019
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Interim Comment

In terms of Section 38(3), 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Tshipi é Ntle Manganese Mining (Pty) Ltd

331 Mamatwan Farm
Kathu
Northern Cape

The approved EMPr commits Tshipi to restore the surface to pre-mining state of wilderness and grazing and requires that the open pit is backfilled. Recent operation optimisation investigations indicate that when considering environmental, socio economic, technical, commercial and legal factors, completely backfilling the open pit is suboptimal. Northern Cape.

SLR Consulting (Africa) (Pty) Ltd has been appointed by Tshipi é Ntle Manganese Mining (Pty) Ltd to conduct an Environmental Authorisation (EA) Application for the proposed alternative closure and rehabilitation project at the Tshipi Borwa Mine, near Hotazel, Northern Cape (NC-00156-MR/102).

A Final Basic Assessment Report (FBAR) has been submitted in terms of the National Environmental Management Act, no 107 of 1998 (NEMA), NEMA EIA Regulations for activities that trigger the Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA)(As amended). The proposed closure includes the backfilling of the open pit and sloping and rehabilitation of the waste rock dumps.

PGS Heritage has been appointed to provide specialist heritage input as part of the EA as per section 38(3) and section 38(8) of the National Heritage Resources Act, Act 25 of 1999 (NHRA) as required by section 24(4)b(iii) of NEMA.

Fourie, W. Recommendation for Exemption from Heritage and Palaeontological Impact Studies: Environmental Authorisation (EA) and Closure and Rehabilitation Optimisation Project at the Tshipi Borwa Mine, near Hotazel, Northern Cape Province-Case ID: 13996.

The letter concludes that no heritage resources were present within the proposed development area and that the proposed activities will not impact heritage resources. The letter noted that stromatolites might be present in the mining area however that the activities would not lead to detrimental impact to the palaeontological resources.

TSHIPI ALTERNATIVE CLOSURE AND REHABILITATION OPTIMISATION PROJECT

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Interim Comment

As per the Interim Comment issued on the 30/07/2019, SAHRA requested that a Letter of Exemption as per the 2012 Minimum Standards: Palaeontological Component of Heritage Impact Assessments be provided by a qualified palaeontologist. SAHRA awaits this requested document before further comments are issued.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Natasha Higgitt
Heritage Officer
South African Heritage Resources Agency

Phillip Hine
Manager: Archaeology, Palaeontology and Meteorites Unit
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