Appendix 1.1-1: EAP Qualifications

SACNASP

South African Council for Natural Scientific Professions

herewith certifies that

Babalwa Atalanta Fatyi

Registration Number: 400123/01

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following fields(s) of practice (Schedule 1 of the Act)

Botanical Science (Professional Natural Scientist)

Effective **15 November 2001** Expires **31 March 2021**

Chairperson

Chief Executive Officer

To verify this certificate scan this code

Aspects International

Certificate

IEMA Approved

Foundation Course in Environmental Auditing South Africa

This is to Certify that

Babalwa Fatyi

Attended and Successfully Completed the above Training Programme on

22nd – 26th November 2004

and Achieved 88% at Examination

Signed _____

Aspects International Ltd

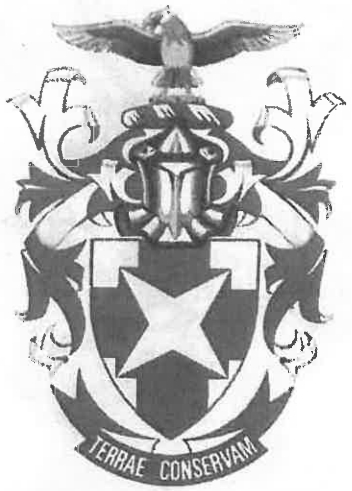
Certificate No. SA0411/04
Issue Date: 08/12/04

ASP/FLEA/00504/SOUTH AFRICA

a core component of the **EcoProfits™** *programme.*

Aspects International Ltd, 5 Towngate House, Towngate Works, Dark Lane, Mawdesley, Nr Ormskirk, L40 2QU England
Telephone: +44 (0) 1704 823555 Facsimile: +44 (0) 1704 823523
EMAIL: info@aspexint.com INTERNET: www.aspexint.com

Institute of Waste Management of Southern Africa



This is to certify that

Babalwa Mbalo

has been elected

Associate Member

of the Institute

Hendrik Keetshilej.

President

Secretary General

10205011
Membership No

1 April 2005
Date

NOSA

Reg. Number 1951/000010/08

This is to certify that

BA MBALO

I D Number

721225 2528 082

has met the requirements for

WORKPLACE RISK ASSESSMENT COURSE

Training period

17/02/2004 - 18/02/2004

EA1614

Manager:

145025

CMC158

YUNIBESITI YA BOKONE-BOPHIRIMA
NORTH-WEST UNIVERSITY
NOORDWES-UNIVERSITEIT

CEM

Centre for Environmental Management
Internal Box 231
Private Bag X6001
POTCHEFSTROOM, 2520
South Africa

Tel.: (018) 299-2715
Fax.: (018) 299-2726
E-mail: aokdg@puk.ac.za
http://cem.puk.ac.za

Mrs BA Fatyi
Environmental Director
Myezo Environmental Management Services
PO Box 13972
VORNA VALLEY
1686

Dear Mrs Fatyi

21 June 2006

COURSE:
IMPLEMENTING INTEGRATED MANAGEMENT SYSTEMS:
ISO 9001: 2000, ISO 14001: 2004 AND OHSAS 18001: 1999
5-9 JUNE 2006 (CEM-07.1)

We hereby inform you that your Final Delegate Assessment Score is (78%) for the above-mentioned course. Please receive herewith your certificate.

Thank you for attending a CEM course and your contribution to the learning experience of all attendees.

Please contact the CEM should you have any other training needs

Yours sincerely

Mrs Dydré Greeff
Centre for Environmental Management

YUNIBESITI YA BOKONE-BOPHIRIMA
NORTH-WEST UNIVERSITY
NOORDWES-UNIVERSITEIT

This is to certify that

BA FATYI

successfully
completed the course

Implementing Integrated Management Systems: ISO 9001: 2000, ISO 14001: 2004 and OHSAS 18001: 1999

5-9 June 2006

CEM
Centre for Environmental Management

Prof. JG Nel
Executive Manager: Centre for Environmental Management
Course Leader

Prof. GJ du Toit
Director Research Focus Area:
Environmental Development and Management

CEM-07.1/0003/06

Potchefstroomse Universiteit
vir Christelike Hoër Onderwys

This is to certify that

BA MBALO

has successfully
completed a course in

IMPLEMENTING ENVIRONMENTAL MANAGEMENT SYSTEMS (SABS/ISO 14001)

20-23 May 2002

Prof. JG Nel
Executive Manager: Centre for Environmental Management
Course Leader

Prof. GJ du Toit
Director Research Focus Area:
Environmental Development and Management

UNIVERSITY OF TRANSKEI

UNIVERSITY OF TRANSKEI

PROGRESS THROUGH LEARNING

This is to certify that

BABALWA ATLANTA MBALO

having complied with the requirements

of the Act and Statutes was admitted to the Degree of

BACHELOR OF SCIENCE

MAJOR SUBJECTS: BOTANY
ZOOLOGY

at a Congregation of the University

held on

18 MAY 1996

REGISTRAR

DEAN

VICE-CHANCELLOR

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

At a congregation of the University

held on 9 December 1999

Babalwa Atalanta Mbalo

was admitted to the Degree of

Master of Science

(with distinction)

Dean, Faculty of Science

Vice-Chancellor and Principal

Registrar

Printed by the Central Printing Unit.

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

At a congregation of the University

held on 24 April 1997

Babalwa Atalanta Mbalo

was admitted to the Degree of

Bachelor of Science with Honours

Botany

Dean, Faculty of Science

Vice-Chancellor and Principal

Registrar (Academic)

Printed by the Central Printing Unit

iema
INSTITUTE OF ENVIRONMENTAL
MANAGEMENT & ASSESSMENT

Certificate of Registration

This is to certify that

Babalwa Fatyi

is registered as an

Environmental Auditor

having, in the opinion of the Council of the Institute of Environmental Management and Assessment, met the criteria for this level of registration

This certificate is only valid with a current IEMA membership card

For and on behalf of the Professional Standards Committee

Appendix hiic1-1: Proof of Newspaper Advert

KATHU

Women Against Crime wil bejaardes bederf

Charlottha Payne van WAC reël elke drie maande 'n projek vir bejaardes in Kathu. Dit is weer tyd vir so 'n projek en Charlottha is meer gedrewe omdat daar geen projekte vrylik kon plaasvind gedurende die strenger inperkingsvlakke van Covid-19 nie.

Sy beoog om pakkies vir bejaardes van deur tot deur af te gee in die eerste week van Mei. Sy wil graag die pakkies aan die bejaardes oorhandig voor Moedersdag, 9 Mei 2021.

Indien u 'n skenking wil maak, is u meer as welkom om vir Charlottha Payne te kontak op 083 653 5208.

Alle skenkings is welkom asook kontantskenking.

Lief & Leed

Well-known resident of Kuruman passed away

Links: **Hennie Craucamp.**

Hendrik Lukas (Hennie) Craucamp, born 10 December 1952, passed away in a hospital in Kimberley on 04 April 2021 due to natural causes.

Mr Craucamp was formerly employed as a Plant Superintendent at United Manganese Mine of the Kalahari (UMK) from 2009 - 2014. He was involved in the production of the mine.

He leaves behind his wife, children, grandchildren, and great-grandchildren.

Martjie Gerber

Perels vir oordenking

Eensgesindheid

Fil. 2:2 NV "...maak dan nou my blydskap volkome deur eensgesind te wees: een in liefde, een van hart, een in strewe."

Paulus was baie lief vir die gemeente in Filippi. Hy was besorg oor die eenheid wat in die gemeente bedreig is deur dwaalleraars. Eensgesindheid beteken nie altyd om dieselfde opinie te hê nie. Dit is 'n gesindheid van die hart en word gekenmerk deur liefde wat moet toeneem vir mekaar, sodat daar waarlik meer begrip en 'n fyn aanvoeling kan wees onderskei word. Sodoende kan die dinge wat werklik saakmaak. Alleenlik waar mense nederig afhanklik is van die Here, kan daar waarlik eensgesindheid wees.

Waar daar selfsug, ydele eer en hoogmoed is en elkeen maar net aan homself dink, ontbreek ware liefde en so ook eensgesindheid. Die gevolg van so 'n gesindheid sal lei tot twis en tweedrag. Ons moet streef daarna en dit beoefen om dieselfde gesindheid van Jesus te hê in ons verhouding met ons broers en susters. 'n Gesindheid wat spreek van ware nederigheid, liefde en 'n bereidheid om vrywillig ander te dien. Dit behoort vir ons 'n vreugde te wees om aan God gehoorsaam te wees en in liefde te streef na eensgesindheid in die gemeente.

NOTIFICATION TO INTERESTED AND AFFECTED PARTIES IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO. 107 OF 1998) AS WELL AS MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT (ACT NO. 28 OF 2002) REGARDING THE ENVIRONMENTAL AUTHORISATION APPLICATION (BASIC ASSESSMENT PROCESS) FOR THE PROPOSED PROSPECTING OF MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 15 KM SOUTH WEST OF POSTMASBURG TOWN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, IN ZF MGCAWU DISTRICT MUNICIPALITY OF NORTHERN CAPE PROVINCE.

Applicant: Basolakhe Investments (Pty) Ltd

Project locality: The application area is situated approximately 15 km South West of Postmasburg town, under the jurisdiction Tsantsabane Local Municipality, within ZF Mgcawu District Municipality, Northern Cape Province. Site coordinates are shown on Figure 1.1, Project Locality map.

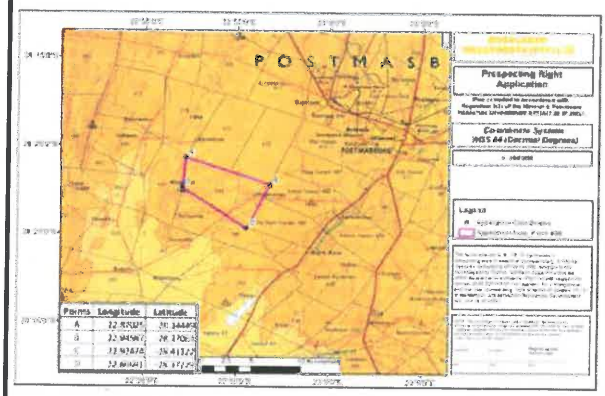


Figure 1.1: Project Locality Map

Process followed: Basic Assessment Report Process
Competent Authority: Department of Mineral Resources and Energy

Notice is hereby given in terms of Section 41 (2) (a) (b) (c) (d) (e) and (3) of National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment Regulations, 2014 published in Government Notice (GN) R982 and Government Gazette No. 3822, as amended in 2017 under GN R326. These regulations were promulgated in terms of Sections 24 (5) and 44 of NEMA.
This notification is also provided in terms of Section 16 (4)(b) of Mineral and Petroleum Resources Development Act (MPRDA) and Chapter 6 of GN R. 982 of NEMA, which requests that Basolakhe Investments (Pty) Ltd (Basolakhe) notify landowners or lawful occupiers and or any other affected parties in writing and consult with all affected parties during the process of seeking an environmental authorisation.

An application for a prospecting right has been lodged with the Department of Mineral Resources and Energy (DMRE) in terms of Section 16 of the National Environmental Management Act, 1998 (Act 107 of 1998) (NEMA): Environmental Impact Assessment (EIA) regulations, 2014. An application for an environmental authorisation was also lodged in terms of NEMA, together with the application for a prospecting right.

Background and Nature of Application:
Basolakhe submitted a Mineral Prospecting Right and Environmental Authorisation applications to DMRE, the Competent Authority (CA) for this project.

The mineral of interest for prospecting is manganese ore, and the area is approximately 2 992,46 hectares in extent.
Non-invasive and invasive (drilling) techniques will be utilised during prospecting. Non-invasive activities will include geological mapping; geological modelling and exploration scheduling analysis; and literature review. Invasive activities will include geological mapping; ground magnetic surveys; Diamond, Air Core, Rotary Air Blast (RAB) or Reverse circulation (RC) drilling of about 30 drill holes of depths ranging from 50 m to 100 m and 1 00 x 100 m drill spacing; and rehabilitation. Prospecting activities will make use of existing roads as far as possible, however, additional tracks estimated as five (5) km in length as well as 30 drill-pads will be created.

The activities to be undertaken under this planned application which are triggered under NEMA regulations include Listed Activities 20 and 22 (i) (ii) (under Listing Notice 1 - GN R983, as amended in 2017 under GN R 327).
This advert forms part of the public participation process, that aims to ensure that the views and concerns of the Interested and Affected Parties (IAPs) are addressed in the succeeding environmental assessment process.

This advert serves to invite all IAPs to participate in the public participation process, which commences from 19 April 2021 to 21 May 2021 (30 days). This process ensures that members of the public are registered as IAPs, to enable them to raise concerns, suggest solutions or seek clarity on the proposed project. All issues and concerns may be lodged formally (in writing) using the contact details provided below. All comments and/or issues should be submitted to the Environmental Assessment Practitioner (EAP) within 30 days of this advert (19 April 2021 to 21 May 2021). The results of this consultation will be included in the final BAR submission so that the DMRE can adjudicate on the application. You are being advised to contact us to obtain an electronic copy of the Draft Basic Assessment Report (BAR), and its supporting documents, should you wish to review the documents.

Environmental Assessment Practitioner Consultant Contact Details:
Myezo Environmental Management Services (Pty) Ltd
Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria
Fax Number: 086 543 1689
E-mail: administrator@myezo.co.za
Contact Person: Lyn Madziwanzira
Contact number: 073 894 7282
Please do also send WhatsApp messages on 081 582 1649 and you will be called back.

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Appendix hiic1-4a: Notification Letter

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

Gauteng Head Office:

Boardwalk Lakeside Suites, Phase 2, Bock G Unit No.8
107 Haymeadow street, Faerie Glen, 0080, South Africa
T: +27 (12) 998 7642, F: 086 354 1698, C: 082 772 2418
E: babalwa@myezo.co.za | W: www.myezo.co.za

Dear interested and affected party (IAP),

NOTIFICATION TO INTERESTED AND AFFECTED PARTIES REGARDING THE PUBLIC REVIEW AND COMMENTING PERIOD IN SUPPORT OF AN ENVIRONMENTAL AUTHORISATION APPLICATION (BASIC ASSESSMENT PROCESS) THAT HAS BEEN LODGED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998) FOR THE PROPOSED PROSPECTING OF MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 15 KM SOUTH WEST OF POSTMASBURG TOWN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, IN ZF MGCAWU DISTRICT MUNICIPALITY OF NORTHERN CAPE PROVINCE.

Document Name: BPB-PI-Notification Letter

Date: 03 May 2021

MYEZO REF: BPB 2021/01

Dear Sir/Madam,

This communication hereby serves as a notification, in terms of National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment Regulations, 2014 GN R982 (2014 EIA Regulations), as amended in 2017 under GN R326, Section 41 (2) (a) (b) (c) (d) (e) and (3) published in GN R982, under Sections 24 (5) and 44 of NEMA, of the proposed activities on Farm 486, located approximately 15 Km South West of Postmasburg Town, within Tsantsabane Local Municipality, in ZF Mgcawu District Municipality of Northern Cape Province. This notification is also provided in terms of Section 16 (4)(b) of Mineral and Petroleum Resources Development Act (Act 28 of 2002) (MPRDA) and Chapter 6 of GN R. 982 of NEMA.

Project Background Information

Basolakhe Investments (Pty) Ltd submitted a Mineral Prospecting Right and Environmental Authorisation application to the Department of Mineral Resources and Energy, the Competent Authority (CA) for this project. The mineral of interest for prospecting is manganese ore, and the area is approximately 2 992,46 hectares in extent. The activities to be undertaken under this planned application which are triggered under NEMA regulations include Listed Activities 20, 22 (i) (ii) and 27 (under Listing Notice 1 - GN R983, as amended in 2017 under GN R 327), therefore, a basic assessment process is being followed for this application.

Non-invasive and invasive (drilling) techniques will be utilised during prospecting. Non-invasive activities will include geological mapping; geological modelling and exploration scheduling analysis; and literature review. Invasive activities will include geological mapping; ground magnetic surveys; Diamond, Air Core, Rotary Air Blast (RAB) or Reverse circulation (RC) drilling of about 30 drill holes of depths ranging from 50 m to 100 m and 1 00 x 100 m drill spacing; and rehabilitation. Prospecting activities will make use of existing roads as far as possible, however, additional tracks estimated as five (5) km in length as well as 30 drill-pads will be created.

An Environmental authorisation will be required for the activities which should be undertaken in terms of the National Environmental Management Act (Act 107 of 1998) (NEMA, as amended). It is against this background, that we, as Myezo Environmental Management Services (Pty) Ltd (Myezo), have been commissioned to act as Environmental Assessment Practitioners (EAPs) for this project to undertake environmental studies for the EA applications.

Public Participation / Stakeholder Engagement Process

This communication forms part of the public participation process, which is being undertaken to ensure that the views and concerns of the interested and affected parties (IAPs) are captured and addressed in the basic assessment report.

To date, Myezo has undertaken engagements with the Department of Mineral Resources (DMR), the Competent Authority, and an application for a prospecting right has been lodged with the Department in terms of Section 16 of the NEMA regulations and an application for an environmental authorisation in terms of NEMA was also lodged. Also, the EAP has identified stakeholders for the proposed project and that process culminated into you being identified as an interested and affected parties (IAPs) in this project, hence this communication. In addition, the Draft Basic Assessment Report and other supporting documents have been compiled. In support of the public participation process, a newspaper advertisement was also compiled and was published in Khathu Gazette on 17 April 2021.

Public Review and Commenting

As part of the public participation process, you are also being notified that the Draft Basic Assessment Report (BAR) including the Environmental Management Programme (EMPr) and Specialist Studies Reports are currently available for Public Review. As such, all IAPs are invited to participate in the process. You are being advised to contact us to obtain an electronic copy of the BAR and its supporting documents should you wish to review the documents.

As part of the notification and commenting process, we have attached the following documents for your information:

i. Copy of the Locality map, showing the location of the project (Appendix 1);
ii. IAP Registration Form - to be used (optional) to provide comments regarding the proposed project and BAR process (Appendix 2).

All comments concerns and/or issues can be formally submitted, either by fax or email, to the Environmental Assessment Practitioner (EAP) within the commenting period commencing on Monday, 19 April 2021 ending on Wednesday, 02 June 2021 (30-days from date of this notice). This ensures that all responses are incorporated and addressed into the Comments and Response Report, which will form part of the Final Basic Assessment Report.

Environmental Assessment Practitioner Consultant Contact Details:

Company: Myezo Environmental Management Services (Pty) Ltd

Address: Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria

Contact Person: Lyn Madziwanzira

Tel: 073 894 7282 (Please do also send WhatsApp message on the same number and the call will be returned).

Fax: 086 543 1698

Email: administrator@myezo.co.za and copy babalwa@myezo.co.za

Appendix hiic1-4b: Notification Email

From: Lyn Madziwanzira <administrator@myezo.co.za>
Sent: Tuesday, May 4, 2021 12:00 AM
To: Faith <faith@myezo.co.za>
Subject: Basolakhe Investments - Postmasburg - PI - Notification Regarding Proposed Project Activities and Availability of Draft Documents for Public Review

NOTIFICATION TO INTERESTED AND AFFECTED PARTIES REGARDING THE PUBLIC REVIEW AND COMMENTING PERIOD IN SUPPORT OF AN ENVIRONMENTAL AUTHORISATION APPLICATION (BASIC ASSESSMENT PROCESS) THAT HAS BEEN LODGED IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NO. 107 OF 1998) FOR THE PROPOSED PROSPECTING OF MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 15 KM SOUTH WEST OF POSTMASBURG TOWN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, IN ZF MGCAWU DISTRICT MUNICIPALITY OF NORTHERN CAPE PROVINCE.

Date: 03 May 2021

Dear interested and affected party (IAP),

This communication hereby serves as a notification, in terms of National Environmental Management Act (Act 107 of 1998) (NEMA): Environmental Impact Assessment Regulations, 2014 GN R982 (2014 EIA Regulations), as amended in 2017 under GN R326, Section 41 (2) (a) (b) (c) (d) (e) and (3) published in GN R982, under Sections 24 (5) and 44 of NEMA, of the proposed activities on Farm 486, located approximately 15 Km South West of Postmasburg Town, within Tsantsabane Local Municipality, in ZF Mgcawu District Municipality of Northern Cape Province. This notification is also provided in terms of Section 16 (4)(b) of Mineral and Petroleum Resources Development Act (Act 28 of 2002) (MPRDA) and Chapter 6 of GN R. 982 of NEMA.

This communication forms part of the public participation process, which is being undertaken to ensure that the views and concerns of the interested and affected parties (IAPs) are captured and addressed in the basic assessment report.

To date, Myezo has undertaken engagements with the Department of Mineral Resources (DMR), the Competent Authority, and an application for a prospecting right has been lodged with the Department in terms of Section 16 of the NEMA regulations and an application for an environmental authorisation in terms of NEMA was also lodged. Also, the EAP has identified stakeholders for the proposed project and that process culminated into you being identified as an interested and affected parties (IAPs) in this project, hence this communication. In addition, the Draft Basic Assessment Report and other supporting documents have been compiled. In support of the public participation process, a newspaper advertisement was also compiled and was published in Khathu Gazette on 17 April 2021.

As part of the public participation process, you are also being notified that the Draft Basic Assessment Report (BAR) including the Environmental Management Programme (EMPr) and Specialist Studies Reports are currently available for Public Review. As such, all IAPs are invited to participate in the process. You are being advised to contact us to obtain an electronic copy of the BAR and its supporting documents should you wish to review the documents.

As part of the notification and commenting process, we have attached the following documents for your information:

i. Notification Letter;
ii. Copy of the Locality map, showing the location of the project (Appendix 1); and
iii. IAP Registration Form - to be used (optional) to provide comments regarding the proposed project and BAR process (Appendix 2).

All comments concerns and/or issues can be formally submitted, either by fax or email, to the Environmental Assessment Practitioner (EAP) within the commenting period commencing on Monday, 19 April 2021 ending on Wednesday, 02 June 2021 (30-days from date of this notice). This ensures that all responses are incorporated and addressed into the Comments and Response Report, which will form part of the Final Basic Assessment Report.

Environmental Assessment Practitioner Consultant Contact Details:

Company: Myezo Environmental Management Services (Pty) Ltd
Address: Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria
Contact Person: Lyn Madziwanzira
Tel: 073 894 7282 (Please do also send WhatsApp message on the same number and the call will be returned).
Fax: 086 543 1698
Email: administrator@myezo.co.za and copy babalwa@myezo.co.za

Kind Regards,

Lynn Madziwanzira
Project Administrator
M +27 73 894 7282 | **T** +27 12 998 7642 | **F** + 27 12 998 7641
E administrator@myezo.co.za | **www.myezo.co.za** | **Facebook page: Myezo Environmental**

#BeSafe #StayHome
https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public

Appendix hiic1-6: Copy of Reply Slip

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

NOTIFICATION OF INTERESTED AND AFFECTED PARTIES IN TERMS OF SECTION 41 (2) (A) (B) (C) (D) (E) AND (3) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO.107 OF 1998) (NEMA): ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS OF 2014, WHICH WERE PUBLISHED IN GOVERNMENT NOTICE (GN) R982 (GOVERNMENT GAZETTE NO. 3822), AS AMENDED IN 2017, UNDER GN R326.

REPLY SLIP TO REGISTER AS AN INTERESTED AND AFFECTED PARTY OR LODGE COMMENTS DURING THE PUBLIC PARTICIPATION PROCESS FOR AN ENVIRONMENTAL AUTHORISATION APPLICATION, IN RESPECT OF THE PROPOSED ACTIVITIES TO BE UNDERTAKEN ON PROSPECTING OF MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 15 KM SOUTH WEST OF POSTMASBURG TOWN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, IN ZF MGCAWU DISTRICT MUNICIPALITY OF NORTHERN CAPE PROVINCE.

APPLICANT: BASOLAKHE INVESTMENTS (PTY) LTD

Document Name: BPB-PI-Reply Slip

Document Status: Rev. 1

Date: 03 May 2021

MYEZO REF: BPB 2021/01

ATTENTION: Ms. Lyn Madziwanzira

Myezo Environmental Management Services (Pty) Ltd

Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria Fax number: 086 543 1689

Email: administrator@myezo.co.za and copy babalwa@myezo.co.za

Enquiry number: 073 894 7282

IAP Comments Slip

Name	**Surname**	**Organisation being represented and address. Note: if you are the landowner/ occupier of land or land user, please do mention that and provide farm name and portion numbers.**	
Telephone Number (Please include dialing code)	**Fax Number**	**E-Mail**	**Mobile/Cellphone number**

Record your environmental concerns, solutions, comments or suggestions, about the project here *(you are welcome to add as many lines as you wish, according to your points of submission or alternatively you are welcome to send your comments as a separate email or letter):*
Any particular/specific project alternatives you would rather choose and why:
Interest in the project (disclose any direct business, financial, personal, or other interest, which you have in the approval or refusal of the application).
Signature:

Details of another person whom you think should be consulted	
Name and surname	
Address/Farm Name and Portion	
Tel and Fax	

Appendix hiie1-1: Comments and Response Table

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES *Environmental Stewardship*				
Issues and Comments Register				
Document Name: QMS-Project Assistant-Issues and Comments Register	**Issue date: 03 September 2020**	**Revision Date: 03 September 2023**	**Revision: 1**	**Status: Pending**
Document No.: QMS/0027-PA8-13-1				

BASOLAKHE INVESTMENTS (PTY) LTD-POSTMASBURG-BASIC ASSESSMENT

ISSUES AND COMMENTS REPOR T IN RELATION TO THE PUBLIC PARTICIPATION PROCES UNDERTAKEN IN SUPPORT OF AN ENVIRONMENTAL AUTHORISATION APPLICATION (BASIC ASSESSMENT PROCESS), FOR THE PROPOSED PROSPECTING OF MANGANESE ON THE FARM 486, LOCATED APPROXIMATELY 50 KM NORTH WEST OF KATHU TOWN, IN THE MAGISTERIAL DISTRICT OF KURUMAN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, NORTHERN CAPE PROVINCE

Document Name: BPB- PI/IAPs – Issues and Comments Register

Date: 22 May 2021

Myezo Ref: BPB 2021/01

DMRE Ref: NC30/5/1/1/2/12710 PR

ISSUE/COMMENT	RAISED BY	RESPONSE	MODE OF RECEIPT	SECTION WHERE ADDRESSED IN THE BAR
Proposed activities are planned on an existing mining right.	Izak Gous-Sishen Iron ore Company	In their application for a prospecting right to the Department of Mineral Resources and Energy (DMRE), Basolakhe Investments (Pty) Ltd applied to prospect manganese and iron ore. The department indicated there is an issued iron ore right on Farm 486.	Email	

ISSUE/COMMENT	RAISED BY	RESPONSE	MODE OF RECEIPT	SECTION WHERE ADDRESSED IN THE BAR
		Following the communication, Basolakhe then pursued the application of manganese ore on the property.		
Access control conflict	Izak Gous-Sishen Iron ore Company	Basolakhe will ensure that the issue of road access is discussed with Sishen Iron Ore Company (SIOC) upon issuance of a prospecting right. In addition, a proper traffic management assessment will be undertaken a plan will be agreed with Sishen (SIOC).	Email	Section J of the BAR Section d of the EMPr
Dust Generation	Izak Gous-Sishen Iron ore Company	Should a mining right be granted, some dust control measures to be implemented include dust suppression and speed limits will be implemented. Dust monitoring and Management will be done according to the approved EMPr and any other agreements to be done between Basolakhe and SIOC.	Email	Section j) and l) of the BAR Section d) iii), e); f) and k) of the EMPr
Biodiversity impact	Izak Gous-Sishen Iron ore Company	Potential impacts on biodiversity were identified, assessed and mitigation measures were developed. The major mitigation is avoiding the disturbance of critical biodiversity areas will be avoided and activities related to clearing vegetation will be limited to the area where the boreholes and site camps will be erected. Rehabilitation and vegetation will be done for all cleared areas. Should there be a need to alter a listed species, a permit will be sought from the relevant authority first, before commencement.	Email	Section e of the EMPr
Water use for prospecting activities. Is a water use licence in place?	Izak Gous-Sishen Iron ore Company	The water will be sourced from the local municipality. Another alternative supply would be to purchase water from suppliers who would bring it to site via mobile water bowser tanks. There will be no application for water use licence for the prospecting phase of this development since there are no triggered water uses in terms of Section 21 of the NWA. It is not anticipated that more than 1000 l per hole will be used. The RC drilling method uses compressed air and	Email	Section d) ii) of the EMPr

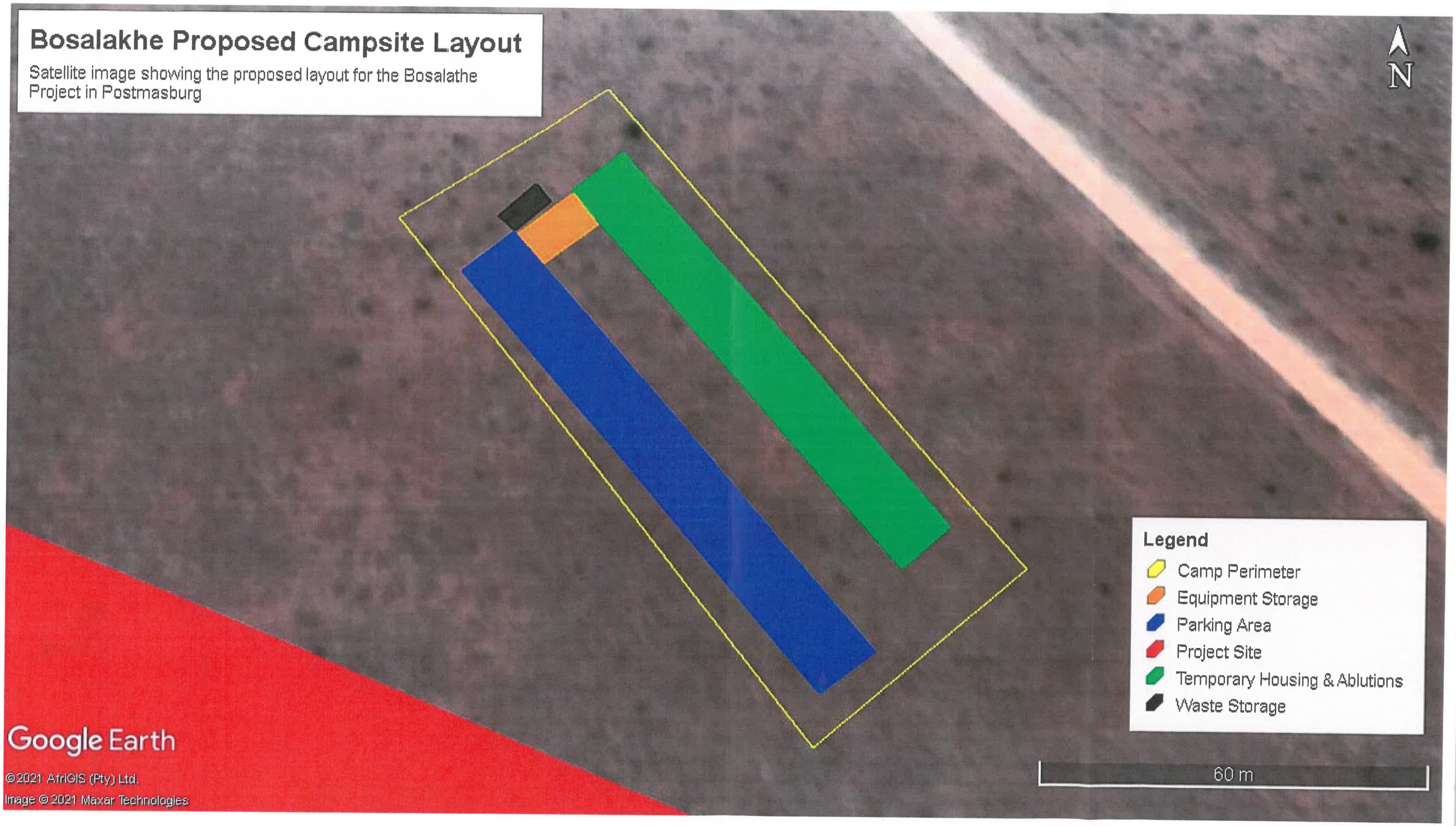
ISSUE/COMMENT	RAISED BY	RESPONSE	MODE OF RECEIPT	SECTION WHERE ADDRESSED IN THE BAR
		does not utilise water. Only when Diamond Core drilling is used, will water be required.		
How will impacts be managed as it is a sensitive environment	Izak Gous-Sishen Iron ore Company	An environmental screening undertaken indicate that the area has very high sensitivity on aquatic biodiversity, paleontology, and terrestrial biodiversity; and high sensitivity on faunal archaeological and cultural heritage. Possible impacts, of the proposed activities, to the environment were identified and mitigation measures for the management of the environment developed.	Email	Section j of the BAR Section e of the EMPr
Have not received the draft BAR yet	Izak Gous-Sishen Iron ore Company	The Basic Assessment Report (BAR) can be accessed from the link below. Please be advised that the shared BAR has been submitted to Department of Mineral Resources and Energy (DMRE) so as to comply with the stipulated timeframes. Therefore, Myezo will not be able to address any comments after submission of the final BAR. If you have any comments on the BAR, kindly direct them to DMRE copy the Environmental Assessment Practitioner (EAP). However consultation regarding surface land use and coexistence agreements will be ongoing and the agreements will be factored on the operational methods statements and procedures. The environmental authorisation conditions will also be implemented.	Email	
To prevent the proposed activities to take place on the said farm as it is on an existing mining right. It is proposed to take place on an area included as part of SIOC Kolomela mine's mining right.	Izak Gous-Sishen Iron ore Company	In their application for a prospecting right to the Department of Mineral Resources and Energy (DMRE), Basolakhe Investments (Pty) Ltd applied to prospect manganese and iron ore. The department indicated there is an issued iron ore right on Farm 486. Following the communication, Basolakhe then pursued the application of manganese ore on the property. Upon approval of the prospecting right, Basolakhe understands	Email	

ISSUE/COMMENT	RAISED BY	RESPONSE	MODE OF RECEIPT	SECTION WHERE ADDRESSED IN THE BAR
		that SIOC is exploring iron on the proposed site and Basolakhe will prospect manganese, thus, no conflicts regarding the exploration of minerals are expected. In addition, should a prospecting right be granted, Basolakhe is committed to ensure that no conflicts will arise from the activities and they will work together with SIOC regarding to ensure that all possible risks are identified and mitigated.		

Appendix d1-1: Infrastructure Layout Plan

Bosalakhe Proposed Campsite Layout

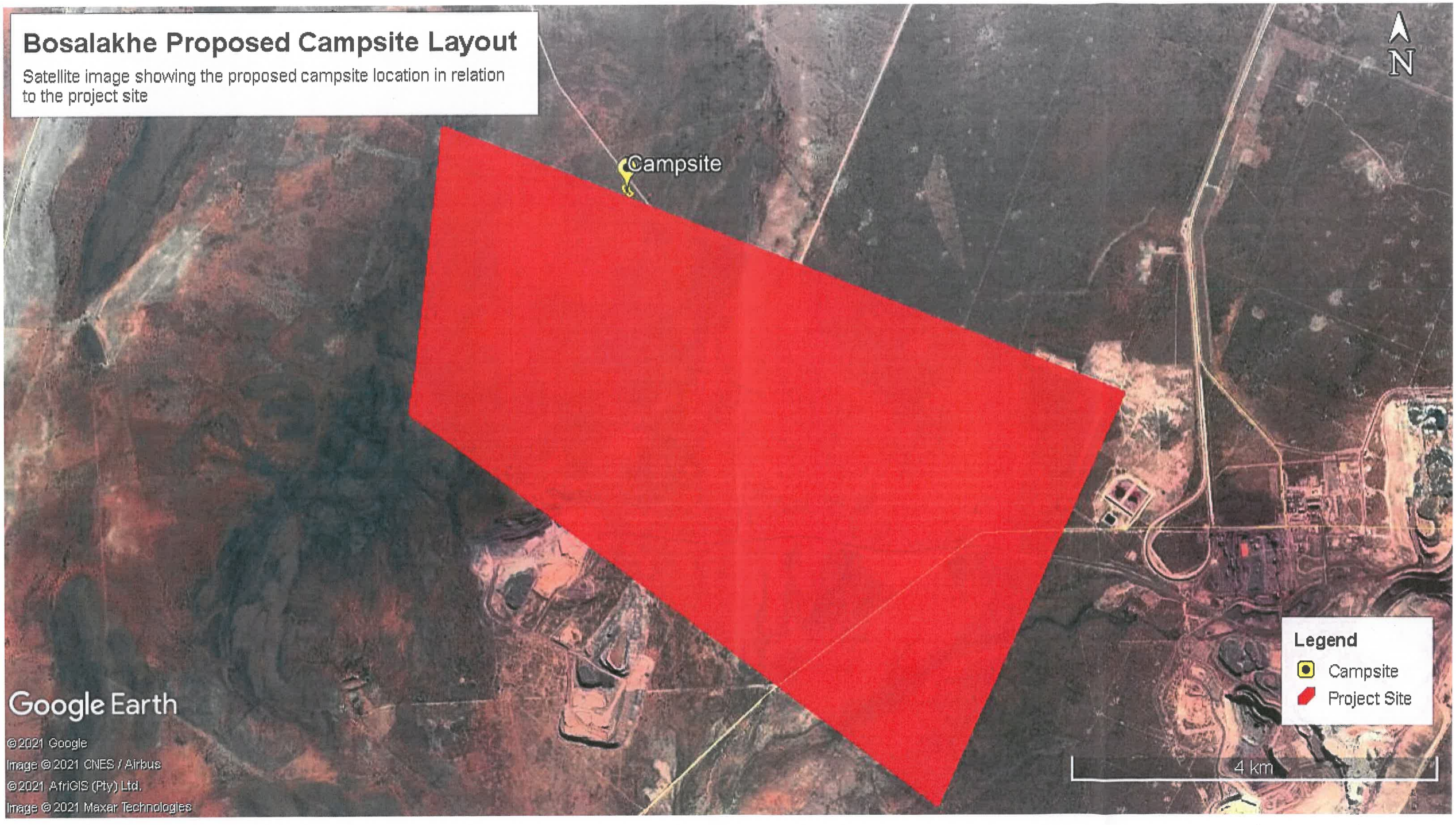
Satellite image showing the proposed layout for the Bosalathe Project in Postmasburg



Appendix d1-2: Camp Location Map

Bosalakhe Proposed Campsite Layout

Satellite image showing the proposed campsite location in relation to the project site



Appendix hiie1-1b: Comments and Response Proof

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

NOTIFICATION OF INTERESTED AND AFFECTED PARTIES IN TERMS OF SECTION 41 (2) (A) (B) (C) (D) (E) AND (3) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT NO.107 OF 1998) (NEMA): ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS OF 2014, WHICH WERE PUBLISHED IN GOVERNMENT NOTICE (GN) R982 (GOVERNMENT GAZETTE NO. 3822), AS AMENDED IN 2017, UNDER GN R326.

REPLY SLIP TO REGISTER AS AN INTERESTED AND AFFECTED PARTY OR LODGE COMMENTS DURING THE PUBLIC PARTICIPATION PROCESS FOR AN ENVIRONMENTAL AUTHORISATION APPLICATION, IN RESPECT OF THE PROPOSED ACTIVITIES TO BE UNDERTAKEN ON PROSPECTING OF MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 15 KM SOUTH WEST OF POSTMASBURG TOWN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, IN ZF MGCAWU DISTRICT MUNICIPALITY OF NORTHERN CAPE PROVINCE.

APPLICANT: BASOLAKHE INVESTMENTS (PTY) LTD

Document Name: BPB-PI-Reply Slip

Document Status: Rev. 1

Date: 03 May 2021

MYEZO REF: BPB 2021/01

ATTENTION: Ms. Lyn Madziwanzira

Myezo Environmental Management Services (Pty) Ltd

Postnet Suite B 165, Private Bag X18, Lynnwood Ridge, 0040, Pretoria Fax number: 086 543 1689

Email: administrator@myezo.co.za and copy babalwa@myezo.co.za

Enquiry number: 073 894 7282

IAP Comments Slip

Name	**Surname**	**Organisation being represented and address. Note: if you are the landowner/ occupier of land or land user, please do mention that and provide farm name and portion numbers.**	
Izak	Gous	Sishen Iron Ore Company (SIOC) Kolomela Mine. Main Street 21 Postmasburg. Landowner - farm 486	
Telephone Number (Please include dialing code)	**Fax Number**	**E-Mail**	**Mobile/Cellphone number**
0605016625	-	Izak.gous@angloamerican.com	0605016625.

Record your environmental concerns, solutions, comments or suggestions, about the project here ***(you are welcome to add as many lines as you wish, according to your points of submission or alternatively you are welcome to send your comments as a separate email or letter):***

- Proposed activities are planned on an existing mining right.
- Access control conflict.
- Dust generation
- Water use for prospecting activities
- Is a water use licence in place?
- Biodiversity impact
- how will impacts be managed as it is a sensitive environment
- Have not received the draft BAR to comment.

Any particular/specific project alternatives you would rather choose and why:

- To prevent the proposed activities to take place on the said farm as it is on an existing mining right.

Interest in the project (disclose any direct business, financial, personal, or other interest, which you have in the approval or refusal of the application).

It is proposed to take place on an area included as part of SIOC Kolomela Mine's mining right.

Signature:

Details of another person whom you think should be consulted	
Name and surname	
Address/Farm Name and Portion	
Tel and Fax	

Appendix hiv1.1: Screening Report

SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

EIA Reference number: NC30/5/1/1/2/12710 PR

Project name: Basolakhe Prospecting Right Application

Project title: Basolakhe Postmasburg EIA Applicationfor Prospecting Right

Date screening report generated: 27/05/2021 01:55:36

Applicant: Basolakhe Investments (Pty) Ltd

Compiler: Myezo Environmental Management Services (Pty) Ltd

Compiler signature:

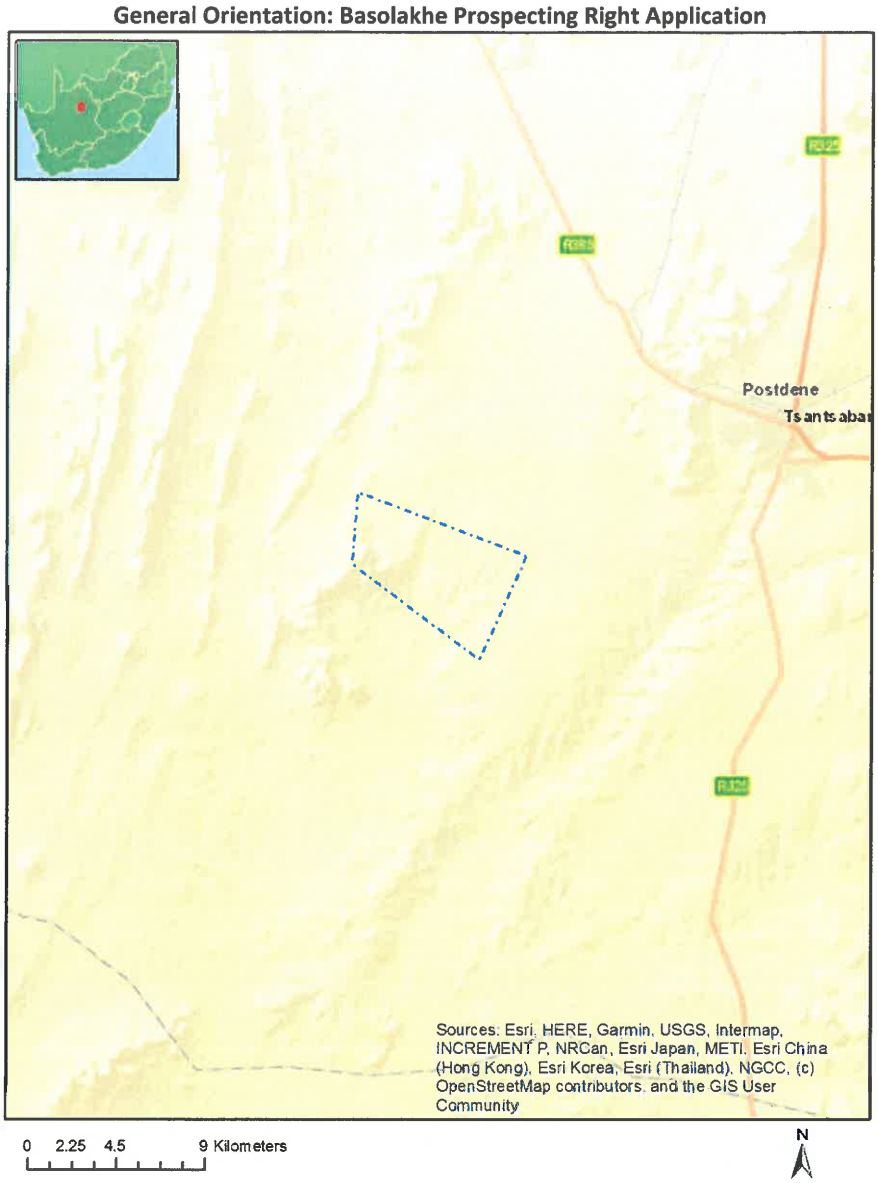
.....

Application Category: Mining|Prospecting rights

Table of Contents

Proposed Project Location

Orientation map 1: General location



Map of proposed site and relevant area(s)

Cadastral details of the proposed site

Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1		486	0	28°22'34.29S	22°54'17.22E	Farm
2		486	0	28°22'35.43S	22°54'16.25E	Farm Portion

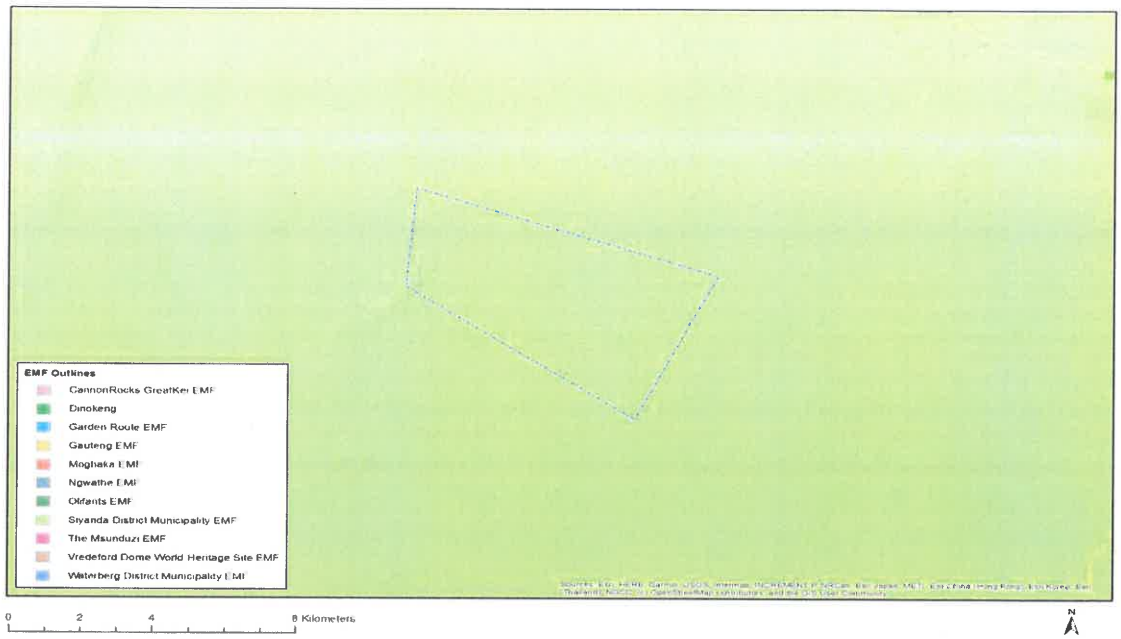
Development footprint[1] vertices:
No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2649	Solar PV	Approved	25.1

[1] "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

Environmental Management Frameworks relevant to the application



Environmental Management Framework	LINK
Siyanda District Municipality EMF	https://screening.environment.gov.za/ScreeningDownloads/EMF/SIYANDA_EMF_REPORT_2008.doc

Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is: **Mining|Prospecting rights**.

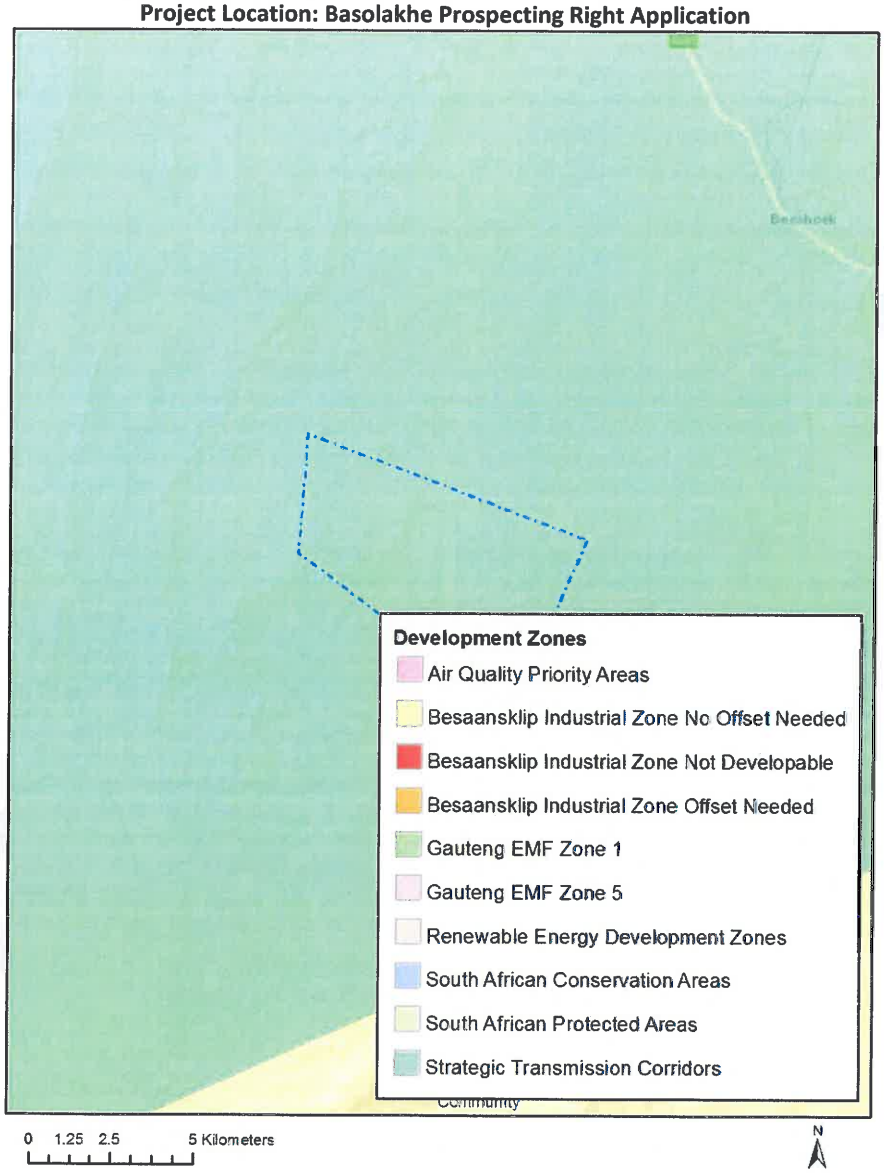
Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentive, restriction or prohibition	Implication
Strategic	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/G

Transmission Corridor- Northern corridor	N 113 16 February 2018.pdf

Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme			X	
Animal Species Theme		X		
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme		X		
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme				X
Terrestrial Biodiversity Theme	X			

Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

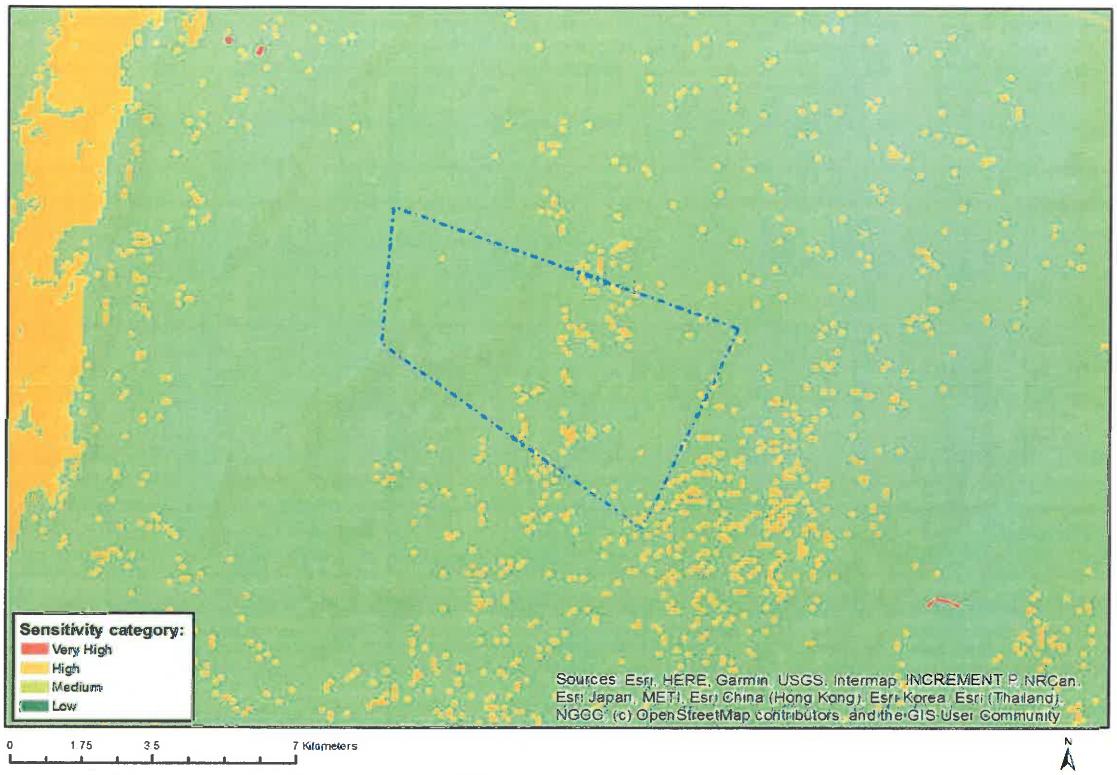
No	Specialist assessment	Assessment Protocol
1	Agricultural Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Agriculture_Assessment_Protocols.pdf
2	Archaeological and Cultural Heritage Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
3	Palaeontology Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
4	Terrestrial Biodiversity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Terrestrial_Biodiversity_Assessment_Protocols.pdf
5	Aquatic Biodiversity	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Aquatic_Biodiversity_Assessment_Protocols.pdf

	Impact Assessment	
6	Noise Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Noise_Impacts_Assessment_Protocol.pdf
7	Radioactivity Impact Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_General_Requirement_Assessment_Protocols.pdf
8	Plant Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Plant_Species_Assessment_Protocols.pdf
9	Animal Species Assessment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/Gazetted_Animal_Species_Assessment_Protocols.pdf

Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY

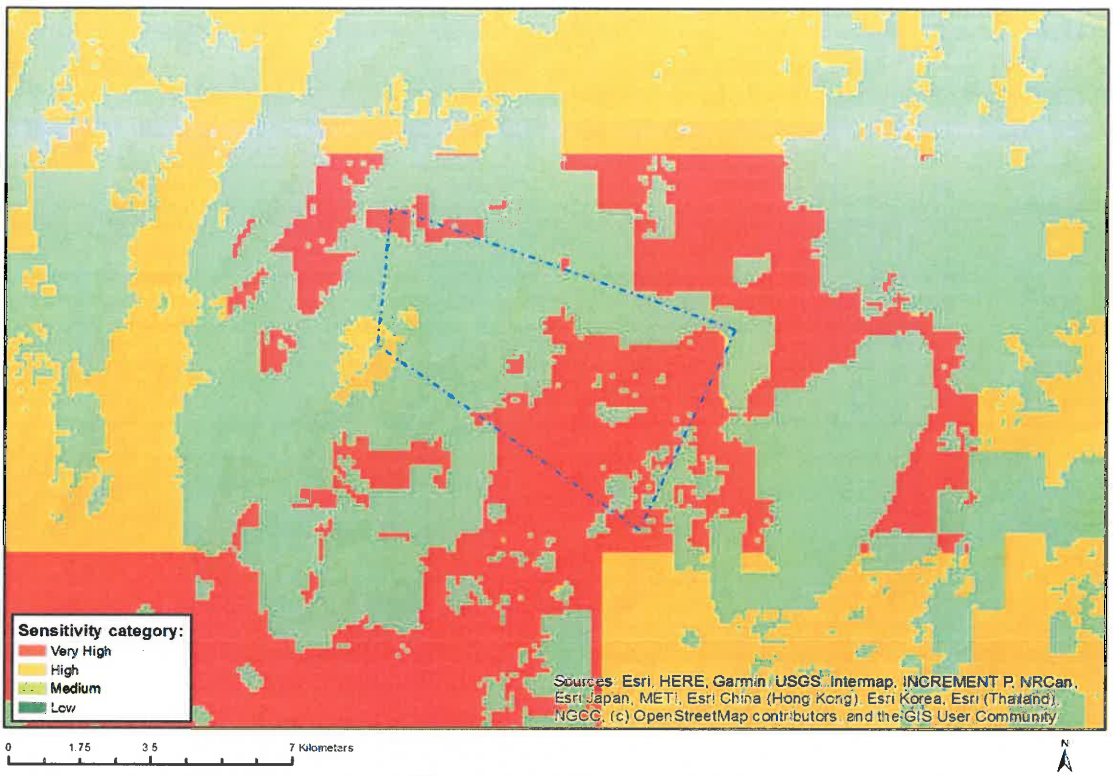


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



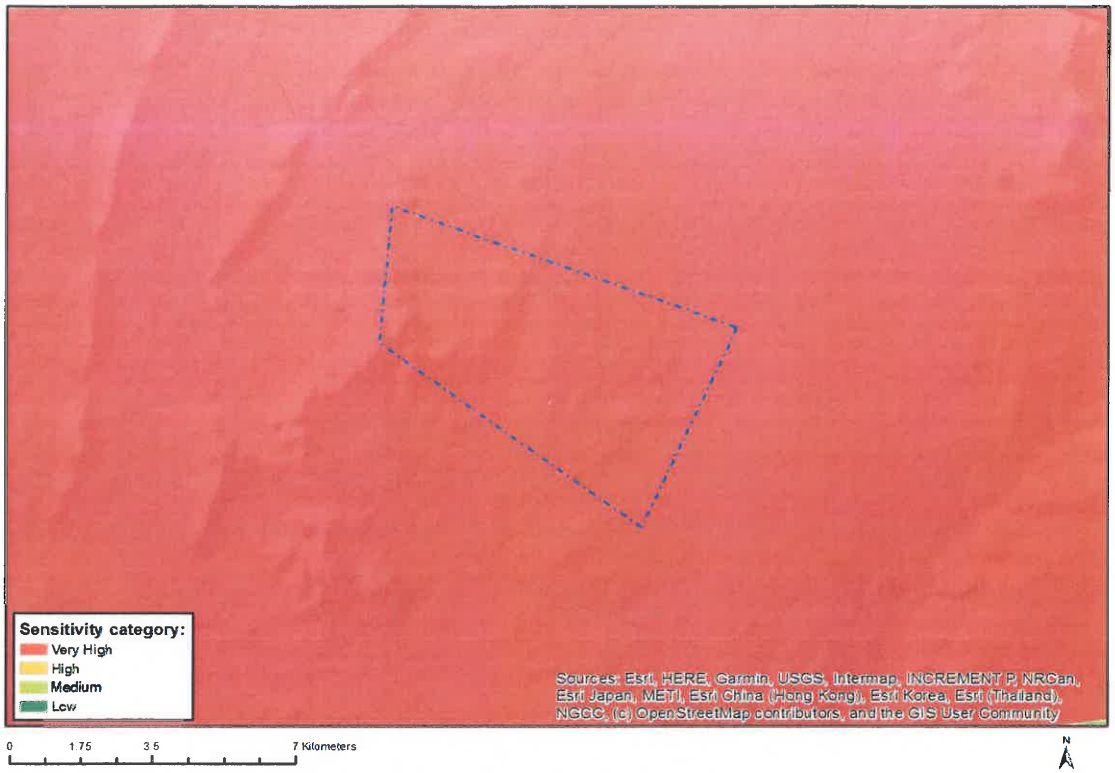
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Aves-Neotis ludwigii
Low	Low sensitivity
Medium	Aves-Aquila verreauxii
Medium	Aves-Sagittarius serpentarius

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

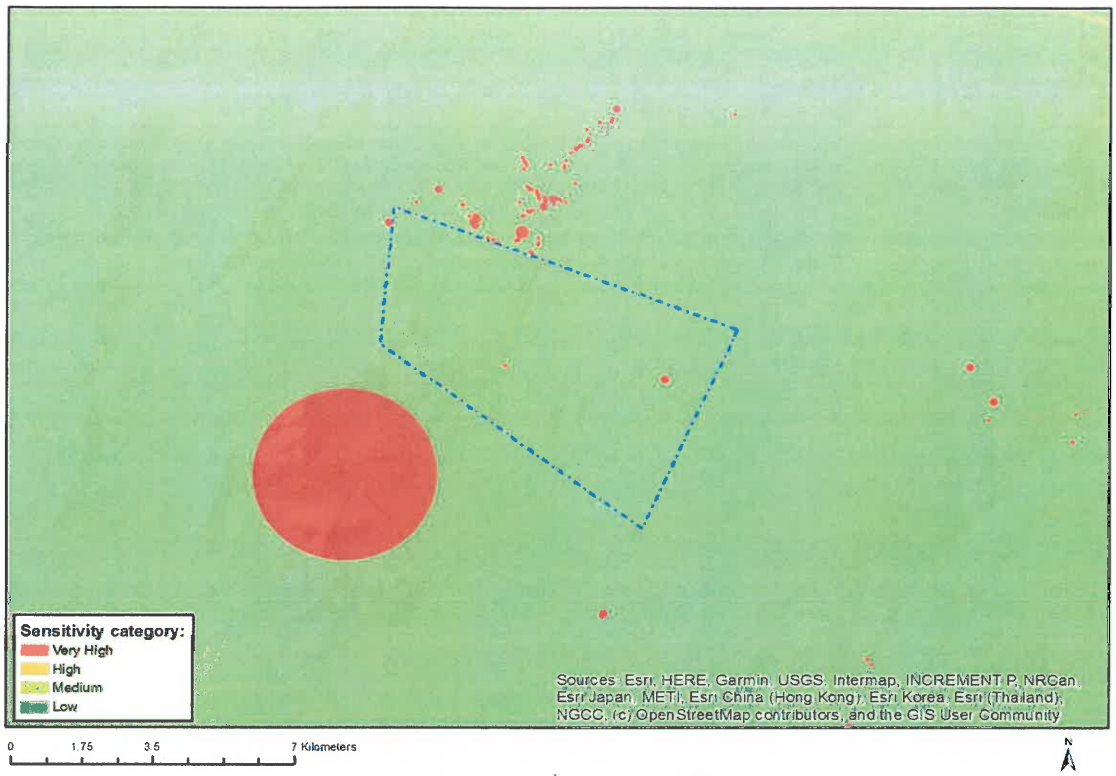


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Wetlands and Estuaries
Very High	Freshwater ecosystem priority area quinary catchments

MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY

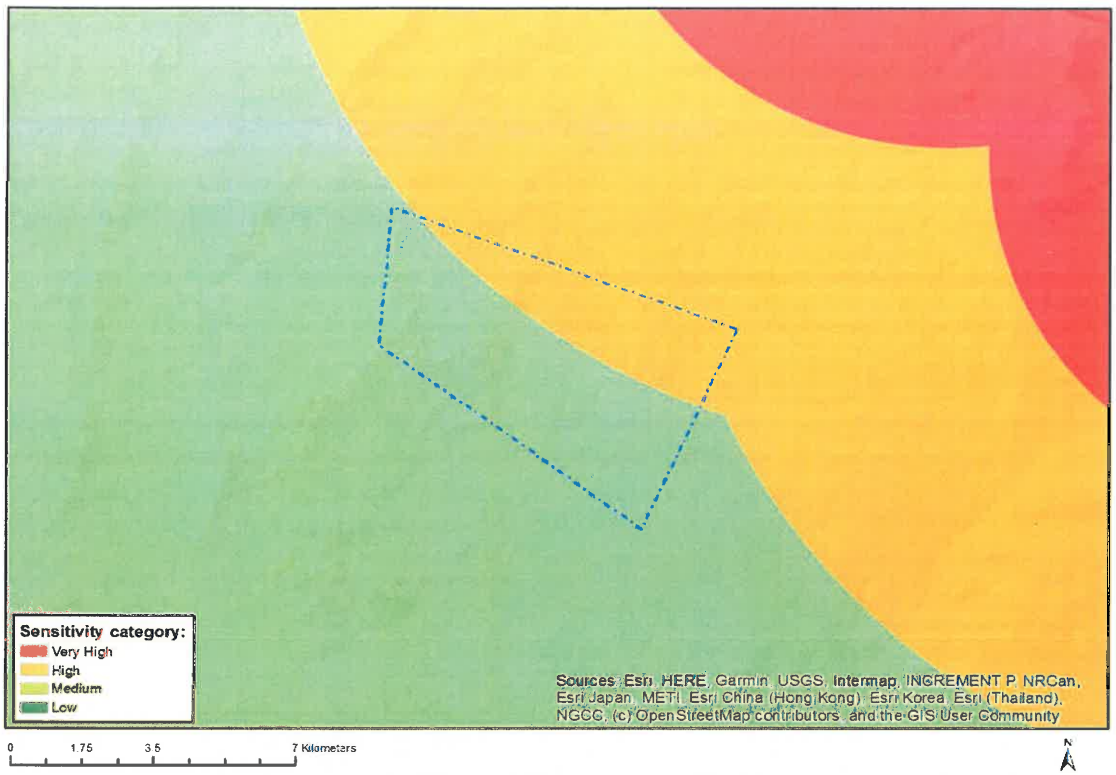


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Within 100m of a Grade IIIb Heritage site
High	Within 50m of a Grade IIIc Heritage site
Low	Low sensitivity

MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY

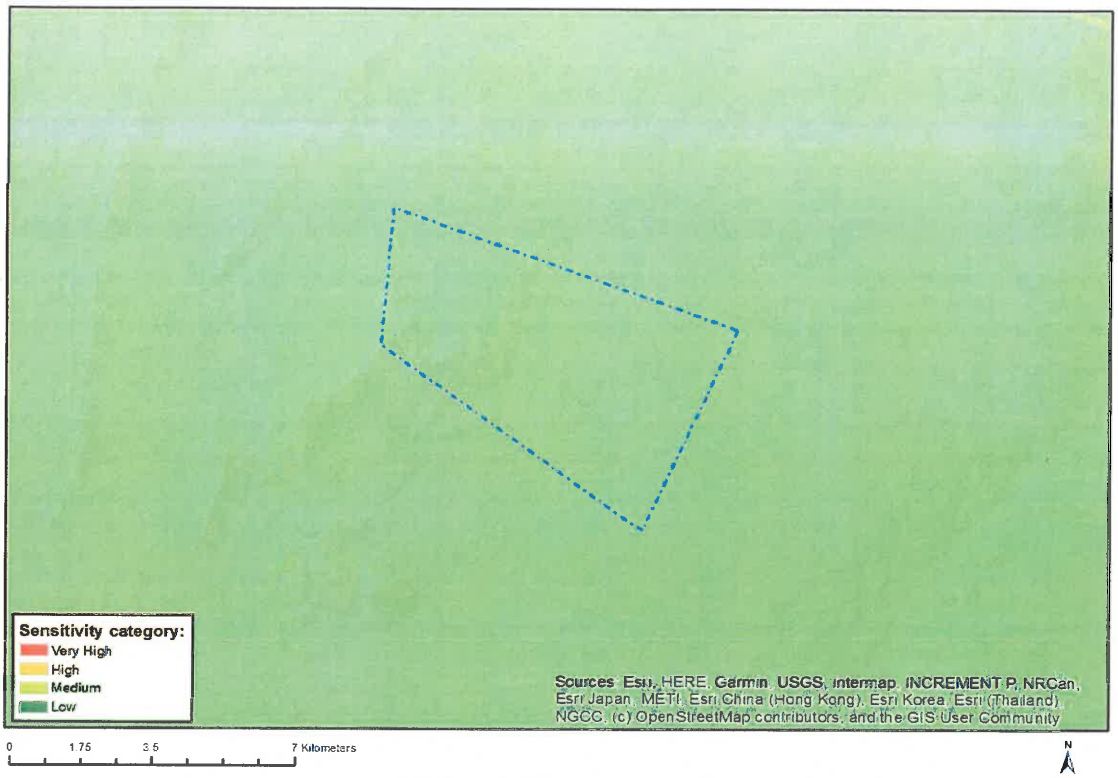


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Between 8 and 15 km of other civil aviation aerodrome

MAP OF RELATIVE DEFENCE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

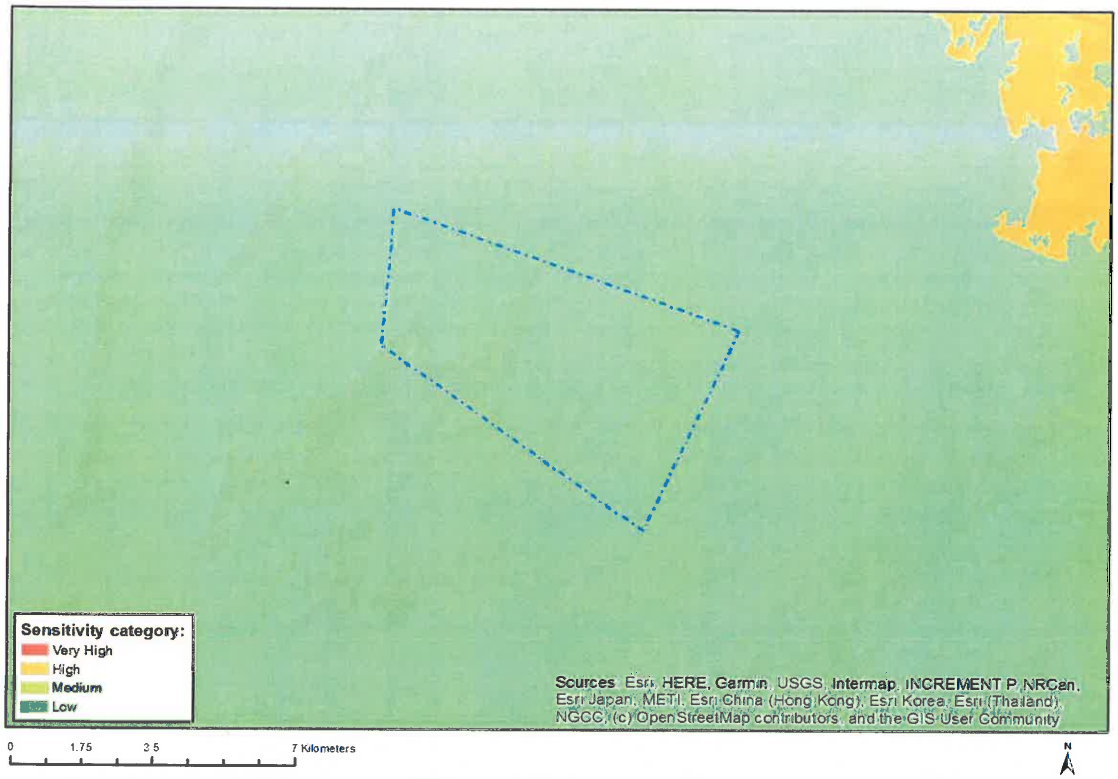
MAP OF RELATIVE PALEONTOLOGY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
High	Features with a High paleontological sensitivity
Medium	Features with a Medium paleontological sensitivity
Very High	Features with a Very High paleontological sensitivity

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY



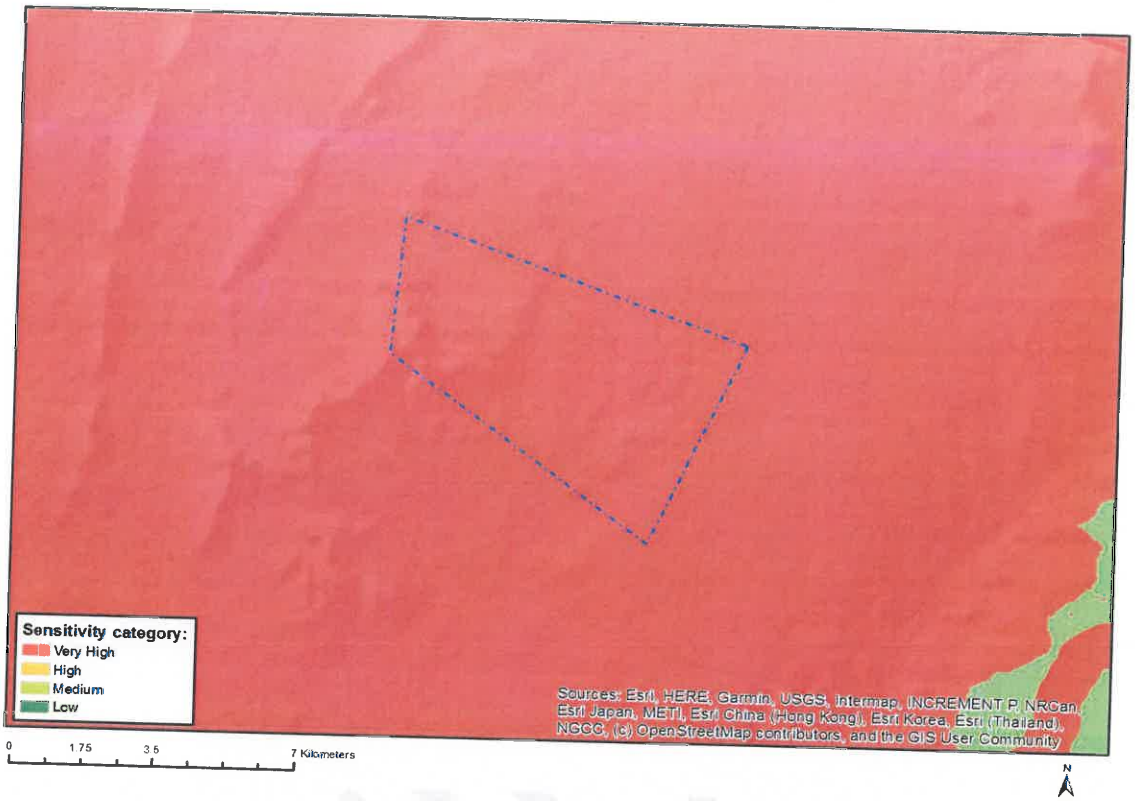
Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Very High	Critical Biodiversity Area 1
Very High	Ecological Support Area
Very High	Freshwater ecosystem priority area quinary catchments

Appendix j1-1: Impact Assessment Table

Appendix j1-1: Impact Assessment

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	Mitigation Type **Modify, remedy, control, or stop through**	Significance If mitigated
PLANNING AND SETUP PHASE										
Selection of exploration technology	Selected exploration technologies (i.e., RC drilling & RAB) will have minimal and manageable impacts on the environmental. *Impact Status:* *Positive*	Land, Soil, Water and Air	1 + 5 = 6	Irreversible	5 Very beneficial as this is the core of the proposed project	1 + 2 = 3	8 x 6 = 48	There is an iron ore mine within the proposed project site. If pro-active approaches such as selecting the correct technology are not taken, there may be large cumulative effects for negative impacts such as noise and erosion.	Modification through the use of alternatives has been done. Selected alternatives such as RC drilling have less impacts on soil and ground water.	8 x 6 = 48
Selection of routes for access roads	Negotiate access with landowner – roads to be used and open or close	Biodiversity , water, soil	1 + 2 = 3	Reversible	3 Moderately severe	3 + 1 = 4	8 x 4 = 32	There are likely to be no cumulative impacts on the biodiversity	Unnecessary destruction of vegetation avoided by ensuring that traffic and personnel movement is restricted to demarcated areas. No traffic should be	4 x 4 = 16

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	status of gates to be used *Impact status: negative*							considering that there are mining activities neing undertaken on the proposed site.	allowed on the rehabilitated areas. Ensure all gates are kept closed and locked as required by the landowner	
	Since the proposed project area is close to communities, access roads may tamper with and damage existing infrastructure and community properties. *Impact status: negative*	Social and economic	1 +3 = 4	Reversible at a cost of repairing or replacing	4 Severe since this results in conflicts with the locals and this may not distort project support	3 + 1 = 4	8 x 4 = 32	There are existing unpaved access roads being used by the community. The presence of a nearby mining activities to the east can result in a medium cumulative effect of damage to public infrastructure and community properties.	The local community and local municipality must be informed of the project before any work is done. They must also be involved in the planning, selection and construction of the access road.	5 x 4 = 20

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
Selection of exploration drilling contractor	Contractors, depending on their institutional capability and resources, may have different abilities to avoid or manage adverse environmental impacts. Selecting the wrong contractor may result in worsening of impacts. *Impact status: negative*	Land, Soil, Water and Air	1 + 4 = 5	Reversible at a cost of avoidable mitigating impacts.	5 Very severe since several avoidable negative impacts will be experienced	2 + 1 = 3	8 x 5 = 40	Most or all existing negative such as air noise and air pollution due to the existing mine near project site will result in a medium cumulative effect when considered collectively with those of the proposed project.	A contractor with a good record of environmental management will be engaged. They also be selected based on the presence of an internal environmental policy which they use for their drilling activities. Tracing and consulting their referees, previous clients and previous works will also be done.	5 x 5 = 25

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
Selection of site for contractor camps	There is possibility of conflicts with locals when planning to work close to community buildings. Drill workers may encroach into homesteads and undermining privacy. *Impact status: negative*	Social	1 + 2 = 3	Reversible through conflict management and issuing out apologies.	4 Severe since this may result in loss of community support for the project.	3 + 1 = 4	8 x 3 = 24	We have no similar or any project in the area which have resulted in conflicts with the community. As such, there will be no cumulative impacts.	Since there will be work close to houses, owners have informed and consulted. Drill workers will not be allowed to be within 50 metres of local homesteads without approval from the supervisor.	5 x 3 = 15
	Areas of cultural and religious importance may be disturbed by	Social, cultural, religious	1 + 2 = 3	Reversible through consultations	3 Moderately severe since conflicts with	2 + 1 = 3	7 x 3 = 21	There were no areas of cultural or religious significance	Even though no sites of significance were identified, local traditional leaders will	7 x 3 = 21

NAME OF ACTIVITY	POTENTIAL IMPACT including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	movement of traffic and people to and from the exploration sites. *Impact status: negative*			and conflict resolution.	local people can result in loss of project support			identified near or within the proposed project area. Therefore, there will be no cumulative effects on this impact.	be consulted and informed of the project as a precautionary step.	
	Water resources conflicts can arise when exploration activities start to use scarce or sensitive resources being used by the community. *Impact status: negative*	Social	1 + 3 = 4	Reversible through remedy or stop measures.	3 Moderately severe since conflicts with local people can result in loss of project support	3 + 1 = 4	7 x 4 = 24	There is an iron ore within to the project site. Drilling activities may result in an increase of pressure on water resources. Viewed alone, the use of water by the drilling activities will not put a strain on the resources but when viewed	The local municipality and ward councillors will be consulted before choosing a water source for drilling purposes. If a homestead water source is to be used, an agreed payment should be done.	5 x 3 = 15

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
								together with the existing mining operations, the cumulative effect is evident.		
Clearing of land for camp and drill site preparation	Soil erosion can result from removal of vegetation during preparation of land for the contractor camp. *Impact status: negative*	Soil, aquatic resources	1 + 3 = 4	Reversible but at very high costs	5 Very severe	3 + 2 = 5	10 x 4 = 40	Due to mining activities happening in the area erosion is happening in the area. As such, erosion by drilling activities will result in high cumulative effects.	Mechanically stabilised earth walls and other best practice methods will be used to control erosion and stop eroded soil from reaching any watercourses. the area has existing erosion which must be rehabilitated prior to any project activity.	6 x 3 = 18
	Clearance of vegetation for the establishment of a	Soil, biodiversity	1 + 3 = 4	Reversible through rehabilitation	5 Very severe since	2 + 2 = 4	9 x 4 = 36	Vegetation clearing has already occurred to some	The area chosen for the establishment of the camp site will be	

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	camp site will result in vegetation / biodiversity loss. *Impact status: negative*				vegetation clearing results in loss of biodiversity.			extent in the area due to cultivation. Viewed together with vegetation clearing by project activities, the cumulative effect is medium.	the minimum reasonably required and will involve the least disturbance to vegetation i.e., minimum clearance of vegetation.	
	There will be generation of dust due of vehicular movement and vegetation clearing. *Impact status: negative*	Soil, Air	1 + 2 = 3	Reversible through rehabilitation	3 Moderately severe since vehicle movement will not be intense	3 + 1 = 4	7 x 3 = 21	Existing erosion and bare soil in the project area due to cultivation. Bare and cultivated soil can result in dust generation. Taken into consideration with dust generation due to project activities, the cumulative effect is high.	Control through water spraying and/or other dust-allaying agents. The speed of haul trucks and other vehicles will be strictly controlled to avoid dangerous conditions, excessive dust or excessive deterioration of the road being used.	6 x 3 = 18

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	Spread of alien invasive species can occur during land preparation for contractor camp. *Impact status: negative*	Biodiversity	1 + 2 = 3	Reversible through control of alien species	4 Forbs are generally known to damage grazing lands and upset soil phosphorus balance	3 + 2 = 5	9 x 3 = 27	Cultivation is one way in which alien invasive species spread. However, cultivation will not be occurring concurrently with drilling activities therefore there will be no cumulative effect.	If any alien invasive species are encountered, they must be removed and burnt or sprayed with approved herbicides.	7 x 3 = 21
	Temporary ablution facilities can result in pollution of groundwater. *Impact status: negative*	Soil and water	1 + 5 = 6	Reversible since ablution wastes are biodegradable	5 Very severe since ablution waste can pollute ground water and threaten	3 + 1 = 4	9 x 6 = 54	Currently, there is no evidence of any existing activities polluting groundwater. As such, there are no cumulative impacts at the moment.	Proper temporary ablution facilities will be used with approved ferrying and dumping.	6 x 4 = 24

NAME OF ACTIVITY	POTENTIAL IMPACT including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
					human health					
CONSTRUCTION PHASE										
Movement of drill rig workers	Drill workers can cause deforestation and / or conflicts with local communities by cutting down trees for firewood. *Impact status: negative*	Social, biodiversity	1 + 4 = 5	Reversible but costs time and resources	4 Severe since deforestation is a global problem and conflicts with locals can result in loss of project support.	3 + 2 = 5	9 x 5 = 45	Viewed as a global problem, cutting down of trees by project workers creates a high cumulative effect	No trees or shrubs will be felled or damaged for the purpose of obtaining firewood, unless agreed to by the landowner/tenant.	5 x 3 = 15
	There is risk of veld fires which can damage properties and result in injuries or loss of life. Fires disturb and	Social, biodiversity	1 + 3 = 4	Irreversible in extreme cases such as the loss of life	5 Very severe since fires can result in loss of life	3 + 1 = 4	9 x 4 = 36	Currently, there are no known cases of veld fires therefore there are no cumulative effects.	Fires will only be allowed in facilities or equipment specially constructed for this purpose. If required by applicable legislation, a fire-break will be	6 x 3 = 18

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	reduce biodiversity. *Impact status: negative*								cleared around the perimeter of the camp and office sites.	
Water Sump	Water can be wasted during drilling activities that have high water consumption for purposes such as cooling and lubrication. *Impact status: negative*	Natural resources	5 + 3 = 8	Reversible since water is renewable	4 Severe since water is a critical resource necessary for the support of life	2 + 1 = 3	7 x 8 = 56	Taking into consideration water use by the nearby mine to the east and water use by the drilling activities, the cumulative effects will be medium.	Water used for drilling purposes or to dilute drill fluid will be recycled in open pits to increase water use efficiency.	6 x 6 = 36

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
Drilling	During drilling and movement of vehicles, dust is produced. Dust can fall on vegetation reducing the surface for photosynthesis. It also poses a risk to the health of workers by causing eye damage and irritation to the respiratory system. *Impact status: negative*	Air quality, human health	5 + 4 = 9	Reversible but at a high cost	4 Severe due to widespread aspects affected	2 + 1 = 3	7 x 9 = 63	Due to the presence of some areas with uncovered soil, there is a possibility of dust generation occurring naturally. Combined with dust from drilling, the cumulative effect is low.	Drilling activities will make use of water to reduce dust. Water will be sprayed where there is constant movement of traffic.	6 x 7 = 42

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	Drill rigs run on diesel and continuously produce fumes that have potent greenhouse gases such as carbon dioxide and nitrous oxide. These cause global warming. *Impact status: negative*	Air quality, global warming	5 + 2 = 7	Reversible but over a long period of time	4 Severe since global warming is a global issue	5 + 2 = 7	11 x 7 = 77	Global warming due to emissions is an ongoing challenge. The cumulative effect when this project is considered is high.	Drill rigs with better emission technology will be used. Catalytic converters and emissions trapping mechanisms will be used. Machinery will be serviced regularly so that they emit less.	6 x 4 = 24
	Drill rigs are made up of several heavy equipment. Noise is produced by the equipment	Social	5 + 3 = 8	Irreversible	3 Moderately severe since modern rigs produce less noise	2 + 2 = 4	7 x 8 = 56	Currently there are no other activities producing noise in the surroundings of the project area.	Drill rigs will make use of silencers. Machinery will be well serviced therefore will make less noise.	6 x 6 = 36

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	Mitigation Type **Modify, remedy, control, or stop through**	Significance If mitigated
	during drilling activities. *Impact status: negative*									
	Vibration is produced by the drill rigs and can disturb underground animals. Workers exposed to vibration over a long period can develop 'shaking syndrome'. Vibration affect underground animals.	Biodiversity, occupational health	5 + 3 = 8	Irreversible	3 Moderately severe since modern rigs produce less noise	2 + 2 = 4	7 x 8 = 56	Currently there are no other activities producing vibrations in the surroundings of the project area.	Machinery will be serviced regularly so that they vibrate less. Vibration monitoring will be carried out on all machinery on a regular basis to ensure workers' exposure is below recommended duration and levels.	6 x 7 = 42

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	Impact status: negative									
	Drill rigs normally operate around the clock and make use of lighting for security and making work easier. Photo-pollution can result from the lighting. Light and noise can disturb the local community. *Impact status: negative*	Social, Biodiversity	5 + 3 = 8	Reversible since there will not be permanent impacts	3 Moderately severe	2 + 2 = 4	7 x 8 = 56	Currently there are no activities in the project area which are causing photo-pollution.	The use of the drill rig will be limited to day time operational hours. Lighting used will be within the workspace and outside of the drill camp. Low frequency lighting will be used. Lighting and noise disturbance or any other form of disturbance that may have an effect on the landowner / tenant / persons lawfully living in the vicinity shall be kept to a minimum.	6 x 6 = 36

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	Risk of occupational injuries is high from the drill rig which makes use of moving parts. *Impact status: negative*	Occupational safety	5 + 2 = 7	Irreversible since some injuries can result in permanent disability or death	5 Very severe since there can be loss of life or permanent disability.	2 + 2 = 4	9 x 7 = 63	Currently there are no activities in the project area which can result in occupational risks to the drill workers.	Workers at drill sites must be trained on proper safety practices and potential occupation safety hazards. Drilling must be done in accordance with the contractor's relevant internal standards.	7 x 6 = 42
	Drainage Surface disturbance can occur during drilling.	Drainage	5 + 2 = 7	Reversible but at a cost	3 Moderately severe	3 + 2 = 5	8 x 7 = 56	Currently there are no known drilling activities in the project area which can result in drainage disturbance.	Appropriate technologies that have been selected for the proposed project have less chances of disturbing the drainage surface.	7 x 6 = 42
	Fly rock can be produced during drilling and can	Occupational and	5 + 1 = 6	Irreversible since some injuries can	4 Severe since there can be	2 + 2 = 4	8 + 6 = 48	Currently there are no known drilling activities in the	Drilling will make use of water for lubrication	6 x 6 = 36

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	result in injuries to the workers or local communities. *Impact status: negative*	community safety		result in permanent disability or death	loss of life or permanent disability, even though the occurrence is unlikely.			project area which can result in fly rock.	and reduction of fly rock. Drill rig will have a safety enclosure to prevent fly rock from hitting workers or locals.	
	Surface water contamination can occur due to spill of drill fluid or effluent water. *Impact status: negative*	Water resources	5 + 1 = 6	Reversible but over a long time	4 Severe	3 + 2 = 5	9 x 6 = 54	Currently there is no evidence of an existing activity causing surface water contamination.	Drilling will make use of biodegradable drill fluid and additives such as Black-Bear & Bentonite, respectively. Water samples will be taken on a monthly basis from nearby water bodies to test for contamination. All effluent water from the camp washing facility shall be disposed of in a properly constructed	6 x 6 = 36

Significance **If mitigated**			
Mitigation Type **Modify, remedy, control, or stop through**	French drain, situated as far as possible, but not less than 200 metres, from any stream, river, pan, dam or borehole. Any spills must be immediately to the satisfaction of the ECO by removing the spillage together with the polluted soil and by disposing of them at a suitable, licensed facility.		Any artefacts found must result in cessation of works and report the findings to SAHRA. In addition, an Environmental Control Officer must familiarise
Cumulative Impacts			Since some of the area within the project site has been cultivated before, the chances of disturbance of
Significance ***Consequence*** ***x Probability***			
Spatial Scale + Duration		2 + 2 = 4	
Severity		4 Severe	
Reversibility		Irreversible since artefacts take a very long time to form	
Impact Probability ***Activity Frequency*** ***+ Impact Frequency***		5 + 2 = 7	
Aspects Affected		Cultural heritage	
POTENTIAL IMPACT Including the potential impacts for cumulative impacts		Undiscovered artefacts can be unintentionally disturbed by drilling activities.	
NAME OF ACTIVITY			

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	Impact status: negative							artefacts is high. Viewed together with drilling activities however, the cumulative effect is low since the project will have no excavation or digging activities.	him- or herself with the formation present and its fossils.	
Fuel and lubricant storage on site	Due to use of high volumes of oil and lubricants by the rig, there is a high possibility of oil leaks and spills which results in water and soil contamination.	Water, soil	5 + 2 = 7	Reversible but at a cost and over a long time	4 Severe	2 + 2 = 4	8 x 7 = 56	Currently there is no evidence of any activities that result in water or soil contamination hence there is no cumulative effect.	No oil or lubricant storage site will be located closer than 100 metres from a stream, river, spring, dam or pan. Machinery will be checked daily and serviced regularly to reduce the chances of oil leaks. Oil trays will be used during	6 x 7 = 42

Significance **If mitigated**	
Mitigation Type **Modify, remedy, control, or stop through**	servicing and refuelling, which will be done on impermeable surfaces. Oils residues will be disposed to approved oil recyclers. Storage of fuels and oils will be done in proper containment which has 150% bunds. There will be a soil decontaminant or hydrocarbon absorbent (e.g. Peat Sorb) on site to ensure that any oil spillages resulting in soil contamination are treated. The treated soil will be removed and disposed separately from
Cumulative Impacts	
Significance ***Consequence*** ***x Probability***	
Spatial Scale + Duration	
Severity	
Reversibility	
Impact Probability ***Activity Frequency*** ***+ Impact Frequency***	
Aspects Affected	
POTENTIAL IMPACT Including the potential impacts for cumulative impacts	*Impact status:* *negative*
NAME OF ACTIVITY	

Significance **If mitigated**	
Mitigation Type **Modify, remedy, control, or stop through**	domestic waste. Oil spills from machinery, will be collected and stored in waste collection bins and transported to the nearest licensed landfill site. The hydrocarbon fluids will be transported to site on drums. Only amounts which will be utilised during the drilling operation will be available on site at any one time. Therefore, there will not be any storage facilities on site. Suitable personal protective equipment
Cumulative Impacts	
Significance ***Consequence*** ***x Probability***	
Spatial Scale + Duration	
Severity	
Reversibility	
Impact Probability ***Activity Frequency*** ***+ Impact Frequency***	
Aspects Affected	
POTENTIAL IMPACT Including the potential impacts for cumulative impacts	
NAME OF ACTIVITY	

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
									(PPE) and protective clothing will be provided.	
	Fuel and oil storage present a fire hazard. Fire can result in loss of biodiversity, injuries or loss of life. *Impact status: negative*	Air, Biodiversity	5 + 1 = 6	Irreversible since fire damage can be permanent	5 Very severe since the effects can be catastrophic	3 + 2 = 5	10 x 6 = 60	Currently, there is no known fuel or oil storage near the project area hence there will be no cumulative effect.	All vehicles and heavy machinery that use combustion engines will have approved fire extinguishers. The ECO / SHE officer will carry out a fire hazard assessment. Burning of waste will be avoided. Use of fire for cooking must be done in a safe zone that is far or buffered from fuel & cleared of dry combustible vegetation	7 x 6 = 42

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
Waste generation from contractor camps	Sewage waste is generated from the contractor camps on a daily basis. This can pose a health risk if not disposed of properly. *Impact status: negative*	Soil, water	5 + 2 = 7	Reversible but at a cost	4 Severe since sewage waste can cause algal blooms and disturb wetlands	3 + 2 = 5	9 x 7 = 63	At the moment, there is no evidence of any activities that threaten to pollute the environment with sewage waste hence there will be no cumulative effect.	Contractor camps can make use of mobile toilets whose waste must be collected and disposed of into the nearest sewer system or other appropriate methods approved by law. Use of 'bush toilets' must be prohibited. Chemical toilet facilities will be used and sited on the camp site in such a way that they do not cause water or soil pollution. All effluent water from the camp washing facility shall be disposed of in a properly constructed	6 x 6 = 36

NAME OF ACTIVITY								
POTENTIAL IMPACT Including the potential impacts for cumulative impacts								Solid waste will be generated
Aspects Affected							Soil, Water, Biodiversity	
Impact Probability ***Activity Frequency*** ***+ Impact Frequency***						5 + 1 = 6		
Reversibility						Reversible but at a cost		
Severity					2			
Spatial Scale + Duration					2 + 2 = 4			
Significance ***Consequence*** ***x Probability***					6 x 6 = 36			
Cumulative Impacts					At the moment, there are no known			
Mitigation Type **Modify, remedy, control, or stop through**	French drain, situated as far as possible, but not less than 200 metres, from any stream, river, pan, dam or borehole. Only domestic type wash water shall be allowed to enter this drain and any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and removed from the site, for appropriate disposal at a licensed facility.				Drill contractor will put in place measures to			
Significance **If mitigated**					4 x 6 = 24			

Significance **If mitigated**	
Mitigation Type **Modify, remedy, control, or stop through**	reduce waste, for example workers will be provided with metal cutlery and not use disposables. Use of Styrofoam will be avoided at all cost. Non-biodegradable refuse such as glass bottles, plastic bags, metal scrap, etc., will be stored in a container at a collecting point and collected on a regular basis and disposed of at a recognised disposal facility. Specific precautions will be taken to prevent refuse from being
Cumulative Impacts	activities generating waste in the vicinity of the project area. Therefore there will be no cumulative effect.
Significance ***Consequence*** ***x Probability***	
Spatial Scale + Duration	
Severity	Almost severe
Reversibility	
Impact Probability ***Activity Frequency*** ***+ Impact Frequency***	
Aspects Affected	
POTENTIAL IMPACT Including the potential impacts for cumulative impacts	daily from the contractor camps. This can distort the environment and pollute water resources. *Impact status: negative*
NAME OF ACTIVITY	

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
									dumped on or in the vicinity of the camp site.	
	Soil erosion may result from the movement of workers and vehicles into and out of the drill site. Eroded soil can cause sedimentation of water bodies. *Impact status: negative*	Soil	5 + 2 = 7	Reversible but at a cost	4 Severe	2 + 2 = 4	8 x 7 = 56	The project site is in an area cultivated before and there has been erosion. Most of the project area has farms, fields and communal lands which are already cleared of vegetation. The cumulative effect will be high.	Where soil clearing is done, it will be done in stages; top soil removed first and stored carefully to preserve its functions as a seed bank, the soil after top soil and stones will be stored separately for use in filling dongas Riparian ecosystem will not be disturbed since it buffers rivers and wetlands from being silted by eroded soil. Where necessary, drainage systems will	6 x 6 = 36

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
									be made to reduce erosion	
REHABILITATION										
Rehabilitation of drill holes	Drill holes must not be left uncovered. They must be rehabilitated. Uncovered drill boreholes can result in aquifer contamination. *Impact status: negative*	Water	1 + 2 = 3	Reversible but over time	2 Almost severe	3 + 1 = 4	6 x 3 = 18	Currently there is no evidence of aquifer contamination from any activity in the project area.	Drill holes will be plugged if they must be used again or filled there is no further use for them.	6 x 3 = 18
Rehabilitation of access roads	Unrehabilitated access roads can promote soil erosion and can distort the natural	Soil	1 + 2 = 3	Reversible but over a long period of time	3 Potentially severe	2 + 2 = 4	7 x 3 = 21	Currently there are no other known access roads	Roads will be ripped or ploughed, and if necessary, appropriately fertilised (based on a soil	6 x 3 = 18

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	look of the environment. This can also make future cultivation difficult where an access road passes through arable land or a crop field. *Impact status: negative*							passing through fields.	analysis) to ensure the regrowth of vegetation. Imported road construction materials which may hamper regrowth of vegetation will be removed and disposed of in an approved manner prior to rehabilitation.	
Rehabilitation of camp sites	Soil erosion can worsen after the contractor camps have been removed as soil previously covered by	Soil	1 + 4 = 5	Partially reversible as soil lost by erosion is hard and costly to recover	4 Severe as there is already soil erosion occurring in the area emanating	2 + 2 = 4	8 x 5 = 40	Viewed alone, soil erosion due to project closure will be high. Combined with the already moderately high erosion rate due to cultivation, the	Once the contractor camp has been removed, vegetation will be planted to control soil erosion. The site shall be seeded with a vegetation seed mix	

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency + Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence x Probability*	Cumulative Impacts	**Mitigation Type** **Modify, remedy, control, or stop through**	Significance If mitigated
	structures will be left bare. *Impact status: negative*				from agricultural activities.			cumulative effect is high.	adapted to reflect the local indigenous flora.	
	Contractor camp must be disbanded properly after exploration. If not done properly, non-degradable waste can pollute or distort the environment whilst soil compaction can occur.	Land, Soil	1 + 3 = 4	Partially reversible	3 Potentially severe	2 + 3 = 5	8 x 4 = 32	No activities causing environmental distortion or compaction were observed therefore there will be no cumulative effects	Metal components can be stowed away for reuse or recycling. Any gate or fence erected by the applicant which is not required by the landowner/tenant, shall be removed and the area restored to the pre prospecting condition. Where office/camp sites have been rendered devoid of vegetation / grass or where soils have been compacted owing to	7 x 4 = 28

NAME OF ACTIVITY	POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Aspects Affected	Impact Probability *Activity Frequency* *+ Impact Frequency*	Reversibility	Severity	Spatial Scale + Duration	Significance *Consequence* *x Probability*	Cumulative Impacts	Mitigation Type Modify, remedy, control, or stop through	Significance If mitigated
Rehabilitation of water abstraction sites and water sumps	*Impact status: negative*	Social, water	1 + 5 = 6	Partially reversible and at a cost	3 Potentially severe since the water bodies in the area are undisturbed.	3 + 2 = 5	8 x 6 = 48	Currently there are no activities in the area resulting in disturbance of water bodies therefore there will be no cumulative effects	Pits will be filled after exploration has been finished since people and animals may fall resulting in injuries or loss of life or livestock. Areas containing French drains will be compacted and covered with a final layer of topsoil to a	6 x 4 = 24
	Water sumps and water abstraction sites must be rehabilitated. Water abstraction sites can result in siltation if not rehabilitated whilst uncovered water sumps can pose a risk to								traffic, the surface will be scarified or ripped. All infrastructure, equipment, plant, temporary housing and associated infrastructure used during the prospecting period will be removed from the site	

NAME OF ACTIVITY			
POTENTIAL IMPACT Including the potential impacts for cumulative impacts	humans and livestock. *Impact status: negative*	Campsite waste can pollute land, water and soil resources. *Impact status: negative*	
Aspects Affected		Land, water and soil	
Impact Probability ***Activity Frequency + Impact Frequency***		1 + 3 = 4	
Reversibility		Partially reversible at a high cost	
Severity		3 Potentially severe	
Spatial Scale + Duration		2 + 3 = 5	
Significance ***Consequence x Probability***		8 x 4 = 32	
Cumulative Impacts		There is currently no evidence of any activities causing contamination of water or soil resources therefore there will be no cumulative effects	
Mitigation Type **Modify, remedy, control, or stop through**	height of 10cm above the surrounding ground surface.	Campsite waste will be recycled or send to a landfill where not possible. All waste material of any nature, including receptacles, scrap, rubble and tyres, will be removed entirely from the prospecting area. and disposed of at a licenced landfill facility. No waste will be permitted to be buried or burned on site.	
Significance **If mitigated**			7 x 4 = 28

Significance **If mitigated**	
Mitigation Type **Modify, remedy, control, or stop through**	Care will be taken to avoid spills and leakages when camp site is being closed. Water samples will be taken close to where the site was after site closure.
Cumulative Impacts	There is currently no evidence of any activities causing contamination of water resources therefore there will be no cumulative effects
Significance ***Consequence*** ***x Probability***	8 x 4 = 32
Spatial Scale + Duration	3 + 2 = 5
Severity	3 Potentially severe
Reversibility	Reversible at a high cost
Impact Probability ***Activity Frequency*** ***+ Impact Frequency***	1 + 3 = 4
Aspects Affected	Water
POTENTIAL IMPACT Including the potential impacts for cumulative impacts	Water resources can be contaminated by leftover oil or drill fluid during the decommissioning of the campsite. *Impact status: negative*
NAME OF ACTIVITY	

Appendix k1-1 : Site notice erection photographic record

SITE NOTICE ERECTION PHOTOGRAPHIC RECORD UNDERTAKEN AS PART OF PUBLIC PARTICIPATION PROCESS IN SUPPORT OF THE PROSPECTING RIGHT APPLICATION FOR MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 15 KM SOUTH WEST OF POSTMASBURG TOWN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, IN ZF MGCAWU DISTRICT MUNICIPALITY OF NORTHERN CAPE PROVINCE.

Document Name: BPB-PI-Site notice erection photographic record

Date: 22 May 2021

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DMRE Ref: NC30/5/1/1/2/12710 PR

Appendix k1-1: Site notice erection photographic record

	
Picture A Coordinates for Picture A: 27° 27' 54.11" S 22° 34' 25.73" E	Picture B Coordinates for Picture B: 27° 27' 54.11" S 22° 34' 25.73" E

Appendix t.1-1: SIA Report

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

BASOLAKHE INVESTMENTS (PTY) LTD - POSTMASBURG - BASIC ASSESSMENT

SOCIO-ECONOMIC IMPACT ASSESSMENT REPORT IN SUPPORT OF ENVIRONMENTAL AUTHORISATIONS APPLICATION (BASIC ASSESSMENT PROCESS) IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998, IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED) FOR THE PROPOSED PROSPECTING OF MANGANESE ORE ON FARM 486, LOCATED APPROXIMATELY 50 KM NORTH WEST OF KATHU TOWN, IN THE MAGISTERIAL DISTRICT OF KURUMAN, WITHIN TSANTSABANE LOCAL MUNICIPALITY, NORTHERN CAPE PROVINCE

Date: 22 May 2021

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Appendix t1-1

Myezo Ref: BPB 2021/01

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DOCUMENT REVIEW AND APPROVAL

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES
Environmental Stewardship

Prepared by	***Lynn Madziwanzira***		
Reviewed by	***Babalwa Fatyi***		
Document Authorisation	***Name***	***Signature***	***Date***
Approved by	***B. Fatyi***		***22 May 2021***

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MYEZO ENVIRONMENTAL MANAGEMENT SERVICES

Environmental Stewardship

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DOCUMENT CONTROL AND REVISION LIST

REVISION LIST

Revision	Nature of amendment	Compiled by	Approved by	Date of amendment
This document (Ver 1)	No amendments to date	Lynn Madziwanzira	Babalwa Fatyi	22 May 2021

Table of Contents

List of Figures

List of Tables

ABBREVIATIONS

BAR: Basic Assessment Report

Basolakhe: Basolakhe Investments (Pty) Ltd

CA: Competent Authority

COVID-19: Corona Virus Disease of 2019

DEFF: Department of Environment, Forestry and Fisheries

DMRE: Department of Mineral Resources and Energy

EA: Environmental Authorisation

EAP: Environmental Assessment Practitioner

HIV: Human Immunodeficiency Virus

IDP: Integrated Development Plan

IFC: International Finance Corporation

MPRDA: Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) as amended

Myezo: Myezo Environmental Management Services (Pty) Ltd

NEMA: National Environmental Management Act (Act 107 of 1998

NEM:BA: National Environmental Management: Biodiversity Act (No. 10 of 2004)

NEMA: National Environmental Management Act (Act 107 of 1998

NHRA: National Heritage Resources Act (Act No. 25 of 1999)

OHSA: Occupational Health and Safety Act (Act No. 85 of 1993)

SAHRA: South African Heritage Resources Agency

SDF: Spatial Development Framework

Stats SA: Statistics South Africa

TB: Tuberclosis

TLM: Tsantsabane Local Municipality

ZFMDM: ZF Mgcawu District Municipality

1. Project Introduction and background

1.1 Introduction

This socio-economic impact assessment report (SIA)is compiled as part of environmental authorisation and prospecting right applications in terms of National Environmental Management Act (Act 107 of 1998) (NEMA) for the listed activities triggered by applications in terms of the Mineral and Petroleum Resources Development Act, 2002 (MPRDA) (as amended) for the proposed exploration of manganese ore on Farm 486 under the Tsantsabane Local Municipality within ZF Mgcawu District Municipality, Northern Cape Province.

1.2 Background

Basolakhe Investments (Pty) Ltd (Basolakhe) is a South African owned company with interests in the exploration of mineral resources such as coal, manganese and iron ore. Basolakhe submitted a Mineral Prospecting Right and Environmental Authorisation (EA) application to the Department of Mineral Resources and Energy (DMRE), the Competent Authority (CA) for this project.

The minerals of interest for prospecting, under the current study is manganese ore, and the area is approximately 2 992, 46 hectares in extent.

Non-invasive and invasive (drilling) techniques will be utilised during prospecting. Non-invasive activities will include geological mapping; geological modelling and exploration scheduling analysis; and literature review. Invasive activities will include geological mapping; ground magnetic surveys; Diamond, Air Core, Rotary Air Blast (RAB) or Reverse circulation (RC) drilling of about 30 drill holes of depths ranging from 50 m to 100 m and 1 00 x 100 m drill spacing; and rehabilitation. Prospecting activities will make use of existing roads as far as possible, however, additional tracks estimated as five (5) km in length as well as 30 drill-pads will be created.

The proposed activities trigger listed activities under National Environmental Management Act (NEMA) regulations as published in Government Gazette No. Gazette No. 3822, as amended in 2017 under GN R326, hence, require that an environmental authorisation be sort before commencement of activities. Subsequently, Basolakhe has appointed Myezo Environmental Management Services (Pty) Ltd (Myezo) as the Environmental Assessment Practitioner to undertake environmental studies and acquire an environmental authorisation for the proposed activities.

1.3 Project Location

The proposed project will be undertaken on Farm 486 located approximately 15 Km south west of Postmasburg Town, within Tsantsabane Local Municipality, in Zf Mgcawu District Municipality of Northern Cape Province.Figure 1.3-1 and Figure 1.3-2 shows the project locality Regional maps respectively.

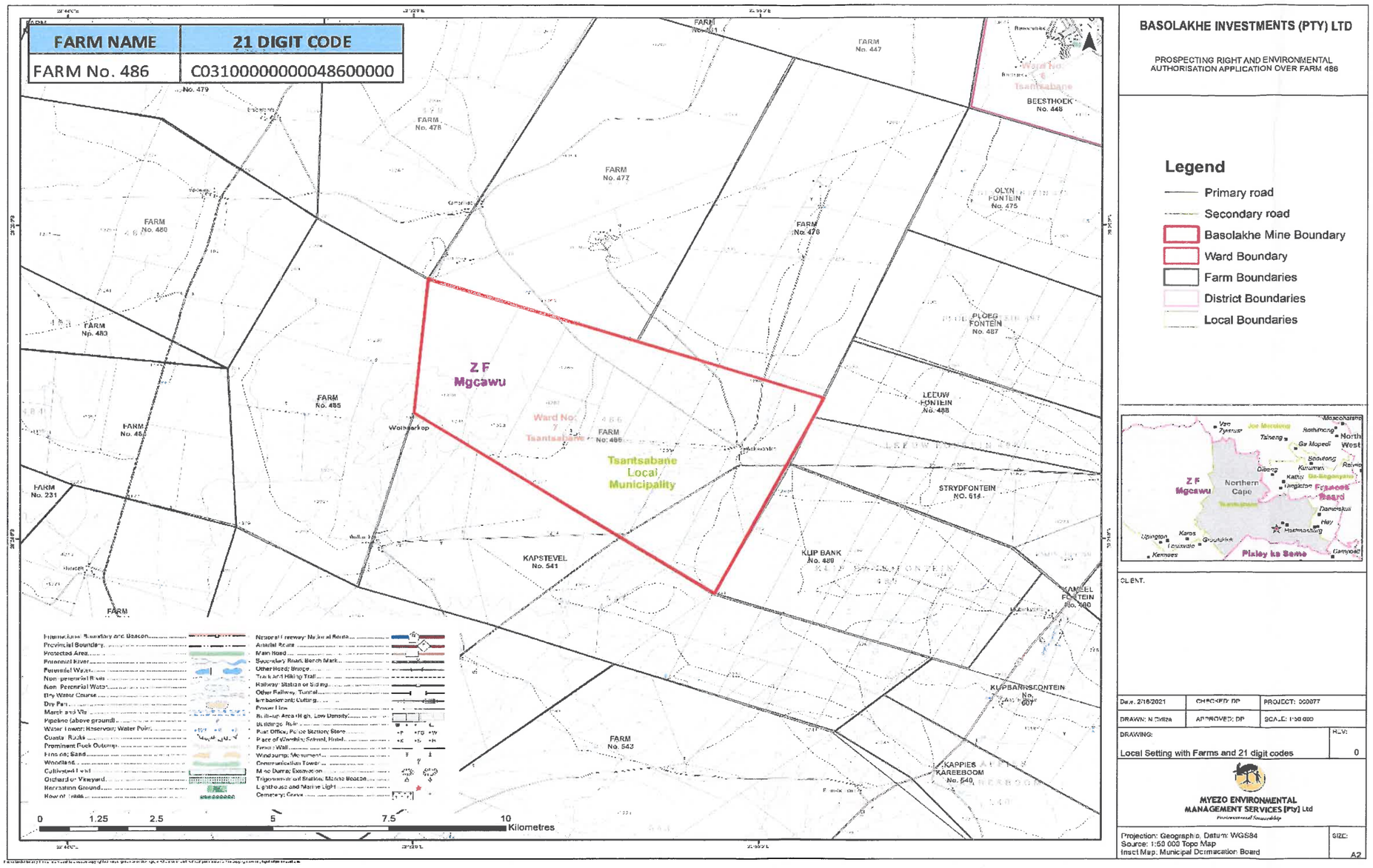


Figure 1.3-1: Project locality map

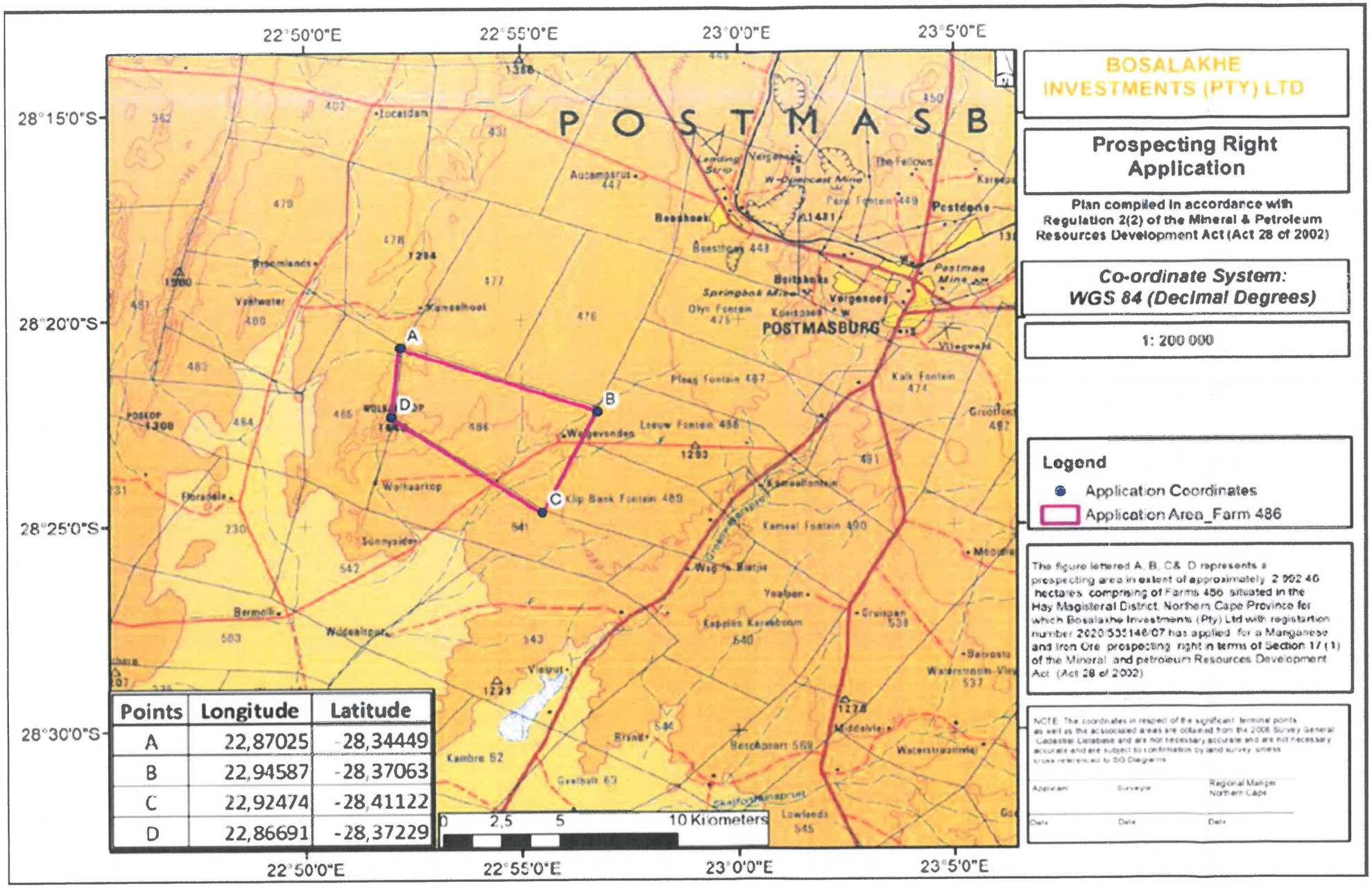


Figure 1.3-2: Regional Map

2. Policy legal and administrative framework

There are a number of relevant legislations, policies and guidelines that underpin development in the context of social, economic and environmental aspects. The two central South African acts for mining development projects are the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998) and the Mineral and Petroleum Resources Development Act (MPRDA), 2002 (Act No. 28 of 2002). However, these acts do not stipulate how or to what extent a social study should be undertaken; however, the legislation does identify the need for a holistic assessment of projects incorporating both the environmental and social aspects. Therefore, it is imperative that socio-economic studies be aligned to the objectives of these legal statutes. This socio-economic impact assessment is undertaken in accordance with the legal and administrative framework documents listed in this section.

2.1 Constitution of the Republic of South Africa Act (No. 108 of 1996)

Section 24 of Chapter 2 on the Bill of Rights deals with the rights of people to an environment that is not harmful to their health or wellbeing; an environment that should be protected; and, that sustainable development should be secured whilst promoting economic and social development.

Section 25 provides that "A person or community whose tenure of land is legally insecure as a result of past racially discriminatory laws or practices is entitled to the extent provided by an Act of Parliament, either to tenure which is legally secure or comparable redress".

Section 27 of the same chapter affirms the rights of everyone to access to sufficient food and water.

2.2 National Environment Management Act (Act 107 of 1998)

The National Environment Management Act (Act 107 of 1998) (NEMA), as amended, outlines several principles that apply to actions that may significantly affect the environment. In the context of this SIA, the following principles are applicable:

- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably;
- Development must be socially, environmentally and economically sustainable; and
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.

2.3. Environmental Impact Assessment Regulations of 2014

Environmental Impact Assessment Regulations of 2014, GN R983, as amended in 2017 under GN R 326 regulate applications for environmental authorisation, subjected to environmental impact assessment, to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts.

2.4 National Water Act (No. 36 of 1998)

This act regulate water uses as listed under Section 21 of the Act. The use of water on the proposed activities should be guided by this Act. In the event that any activities listed under the National Water Act (NWA) are triggered, then a water authorisation will be sort.

2.5 National Environmental Management: Biodiversity Act (Act No. of 2004)

This includes the protection of species and ecosystems; the sustainable use of indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; and the establishment of a South African National Biodiversity institute. The proposed development should not hinder other landowners to access biological resources and or should not result in the degradation of biological resources offering ecosystem services to other landowners and the community at large.

2.6 National Heritage Act (Act No. 25 of 1999)

The act governs the integration of heritage resources conservation in economic developmental projects. It states that when any paleontological resources are discovered during developmental work, works must cease and a report done to the South African Heritage Resources Agency (SAHRA).

Controls for the protection of natural and cultural heritage resources. No person may, without a permit issued by SAHRA or a provincial heritage resources authority—

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves; and

(b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority.

2.7 South African Mining Charter

The act focuses on sustainable transformation of the mining industry. Mining Charter seeks to achieve the following objectives:

(a) To promote equitable access to the nation's mineral resources to all the people of South Africa;

(b) To substantially and meaningfully expand opportunities for HDSA to enter the mining and minerals industry and to benefit from the exploitation of the nation's mineral resources;

(c) To utilise and expand the existing skills base for the empowerment of HDSA and to serve the community;

(d) To promote employment and advance the social and economic welfare of mine communities and major labour sending areas;

(e) To promote beneficiation of South Africa's mineral commodities; and (f) Promote sustainable development and growth of the mining industry.

Social management and mitigation measures, to be developed as part of the SIA, will be aligned to the Mining Charter, if need be.

2.8 Labour Relates Statutes

The set of Acts discussed below refers to good labour practices and socio-economic rights of workers as well as health aspects to be observed in a work environment. These Acts are:

- Labour Relations Act (LRA) (No. 66 of 1995).
- Basic Conditions of Employment Act (BCEA) (No. 75 of 1997)

At various phases (preconstruction, construction, and decommissioning phases) of the proposed project there will be jobs created and therefore all these Acts are applicable. The LRA and the BCEA give effect to rights conferred in the Constitution, which are in Sections 23 and 27, respectively. The LRA aims to promote economic development, social justice, labour peace and democracy in the workplace; whilst the BCEA gives effect to the right to fair labour practices.

2.9 Occupational Health and Safety Act (No. 85 of 1993)

At the workplace, the Occupational Health and Safety Act (OHSA) outlines clear responsibilities for both employees and employers in ensuring that a safe work environment is created and maintained at all times. This will also apply to the requirement that appropriate safety clothing, gear and equipment be provided to workers. With the prevalence of COVID-19, the issue of personal protective equipment will become critical to monitor during implementation of the project.

2.10 Promotion of Administrative Justice Act (No. 3 of 2000)

The Act encourages consultation of communities by state organs when they take decisions that impact on individuals and communities by giving them an opportunity to comment; failing which; the ultimate decision will be unlawful. Information in the possession of the project team, confirms that there have been regular consultations with the affected parties; and, that a Community Stakeholder representative is recognised and or appointed by the developer.

2.11 National Development Plans (vision 2030)

The National Development Plan identifies challenges and achievements that the country has recorded since 1994. The Spatial Planning and Land Use Management Act - SPLUMA (No. 16 of 2013)

The SPLUMA amongst other principles, provides the following key principle, which has a bearing on assessing the proposed development in line with national requirements:

- Sustainable development of land requires the integration of social, economic and environmental considerations in both forward planning and on-going land use management to ensure that development of land serves present and future generations.

2.12 Performance Standards on Environmental and Social

The International Finance Corporation (IFC): Performance Standards on Environmental and Social Sustainability (IFC, 2012) have been considered and incorporated throughout this assessment. The main standards applicable to this SIA study are summarised in this section.

2.12.1 Performance Standard 1: Social and Environmental Assessment and Management Systems

The objectives of Performance Standard 1 are to:

- Identify and assess social and environmental impacts, both adverse and beneficial, in the project's area of influence;
- Avoid, or where avoidance is not possible, minimise, mitigate, or compensate for adverse impacts on workers, affected communities, and the environment;
- Ensure that affected communities are appropriately engaged on issues that could potentially affect them; and
- Promote improved social and environmental performance of companies through the effective use of management systems.

2.12.2 Performance Standard 4: Community Health, Safety and Security

The objectives of Performance Standard 4 are:

- To ensure that the safeguarding of personnel and property is carried out in a legitimate manner that avoids or minimises risks to the community's safety and security; and
- To avoid or minimise risks to and impacts on the health and safety of the local community during the project life-cycle from both routine and non-routine circumstances.

2.12.3 Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

The project effects on biodiversity and natural resource management and utilisation are contained in the Biodiversity Impact Assessment, with the main findings presented in the Scoping and EIA Reports.

2.12.4 Performance Standard 8: Cultural heritage

The objectives of Performance Standard 8 are to:

- Identify and reduce or avoid adverse impacts on cultural heritage resources; and
- Ensure the participation of affected communities in the identification of, and potential mitigation of cultural heritage resources, recommending appropriate strategies for impact reduction and long-term cultural heritage management.

3. Project Area

The In order to assess potential socio-economic impacts of the proposed Project, it is important to first understand, at a very high-level, the socio-economic context in which the proposed Project is to be developed. This potential area of impact is referred to as either the regional study area or the local study area and may extend beyond the project boundaries depending on the scale of the potential socio-economic impact. For the purposes of this SIA, the assessment will focus on three levels, namely the regional study area, the local study area, and the project site.

3.1 Regional Study Area

The project site is located within the jurisdiction of Tsantsabane Local Municipality within ZFMDM, within the Northern Cape Province. The ZFMDM is one of the five (5) districts in the

Northern Cape Province covering approximately 100 000 km², equating to about 30% of the Province's total area (ZFMDM IDP 2020-2021). An estimated area of 65 000 km² comprise of the vast Kalahari Desert, Kgalagadi Tran frontier Park and the former Bushman Land. ZFMDM is a Category C Municipality with the local municipal offices located in Upington and is made up of is made up of five (5) local municipalities which are: (1) Kai! Garib; (2) Dawid Kruiper; (3) Tsantsabane; (4) !Kheis; and (5) Kgatelopele (Municipalities of South Africa, 2021). The District Municipality share boarders with Botswana to the north and Namibia to the west.

3.2 Local Study Area

Tsantsabane Local Municipality (TLM) covers an area of 5 877 km² and is made up of 7 wards and the project area falls within Ward 6 and 7. The Tsantsabane Local Municipality IDP 2020-2021 state that the local municipality is located within the falls in the Gamagara Corridor that comprises of the mining belt of the John Taolo Gaetsewe and ZF Mgcawu districts and runs from Lime Acres and Danielskuil to Hotazel in the north. The corridor focuses on the mining of iron and manganese. The presence of the mining belt makes TLM a mining area.

Postmasburg is the service town within TLM located about 200 km and 240 km from Kimberly and Upington respectively. TLM is made up of townships namely: Boichoko; Newtown; Whitecity; Potsdene; Mountainview; and Greenfield and rural settlements namely: Jenn-Haven; Maremane; Groenwater; and Skeyfontein.

In terms of road networks, major routes, the R385 runs through Postmasburg from Kimberley through Beeshoek and the R309 and the R325 to Kathu.

3.3 Project Area

The proposed site falls under Postmasburg town located about 15 km from the central business district. Kathu is located about 70 km on the north east, Hotazel at about 128 km to the north, Upington is located about 160 km to the west, Kuruman at about 111 km to the north-east west of, Beeshoek at approximately 14.5 km to the south-west, and Griquatown located about 67.5 km to the to the south east. In addition, Kimberly is located about 191 km south-east of the project area. Figure 3.3.1 shows the project area within the Regional context and Figure 3.3-2 shows the project area within the local context.

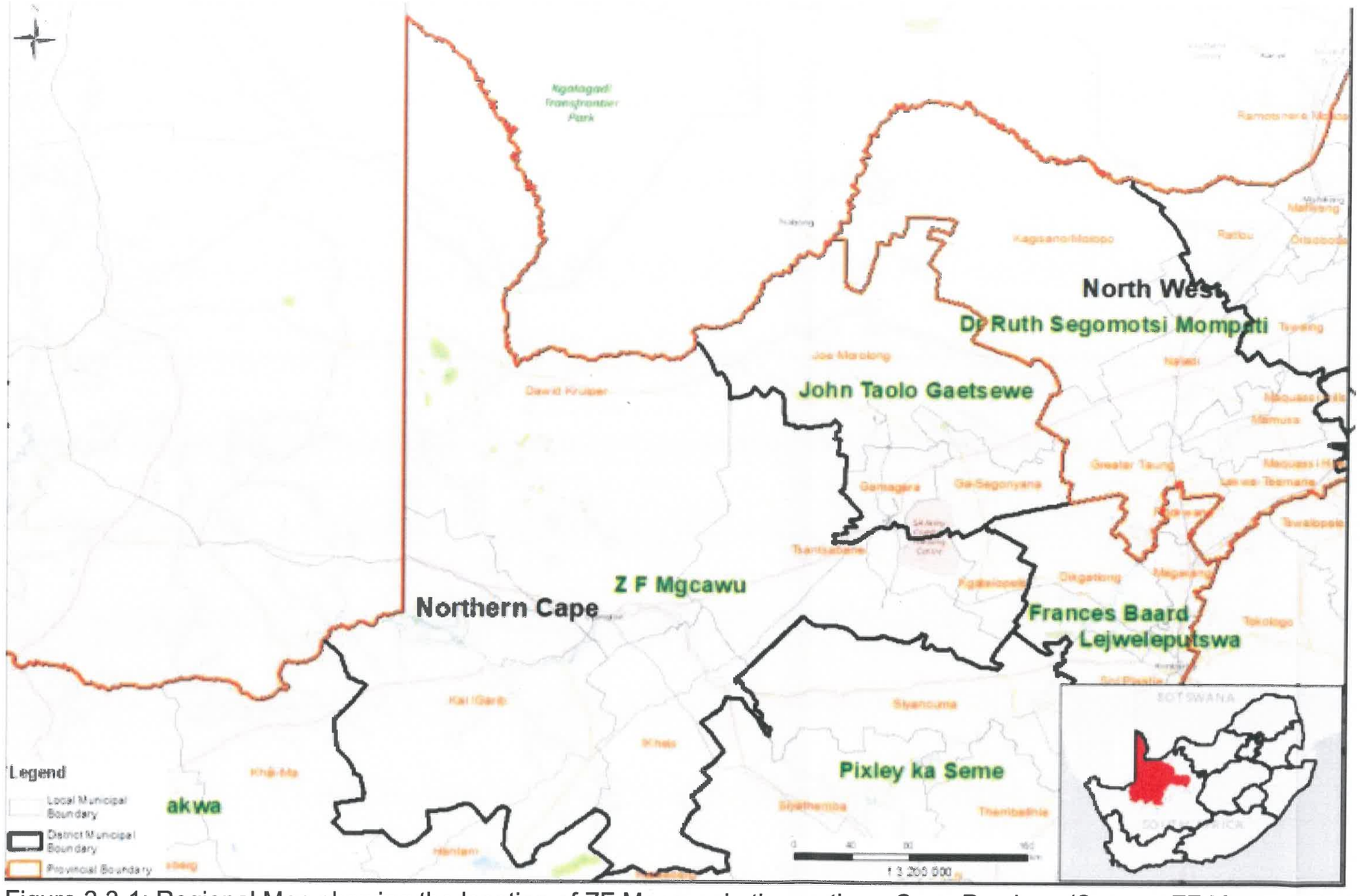


Figure 3.3-1: Regional Map showing the location of ZF Mgcawu in the northern Cape Province (Source: ZF Mgcawu Profile, 2019)

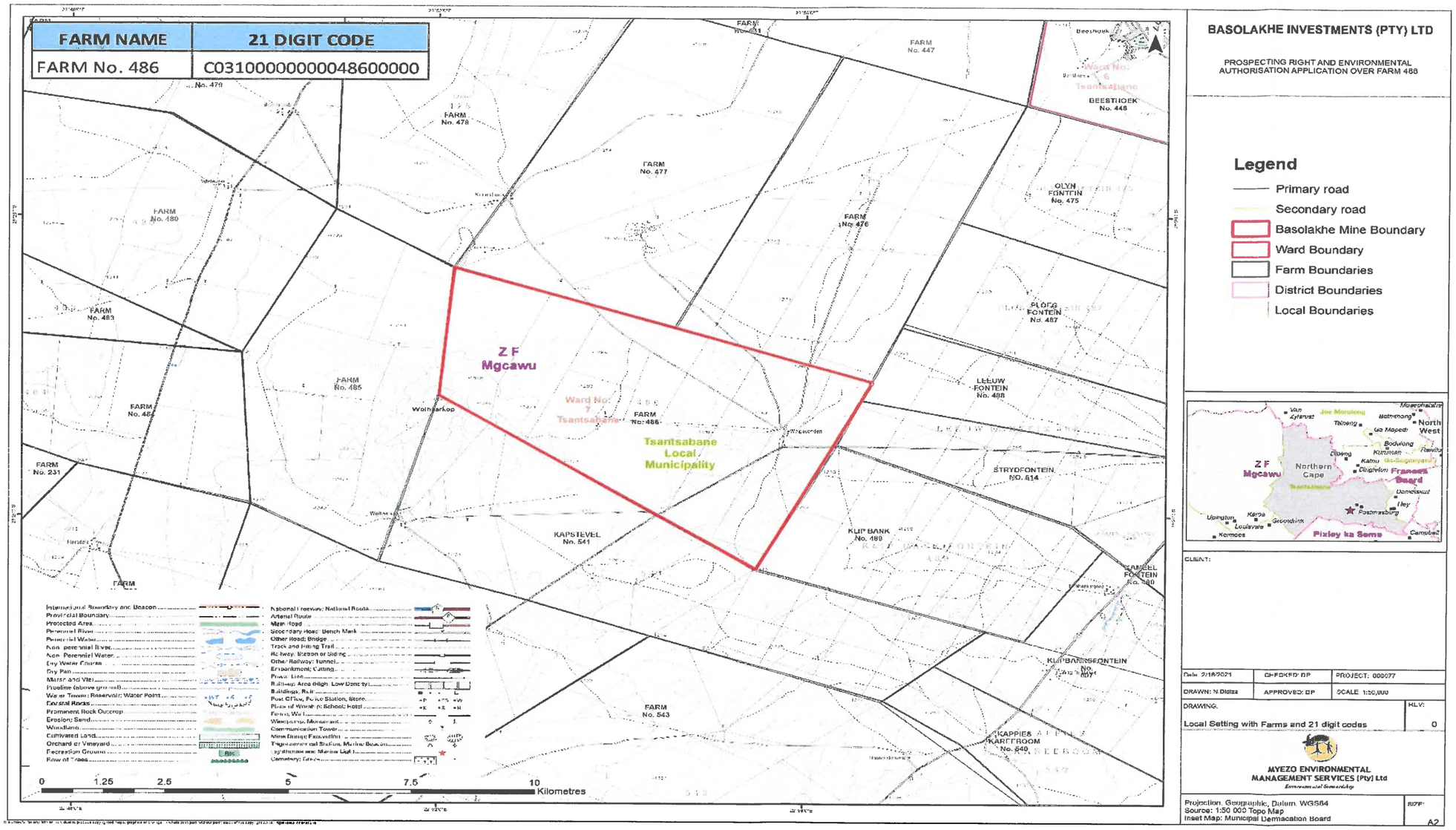


Figure 3.3-2: Project Locality Map

4. Methodology

The study was designed to comply with the relevant national legislative requirements, such as those stipulated in National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and Mineral and Petroleum Resources Development Act, 2002 (MPRDA) (Act No. 28 of 2002), as well as with the relevant international best-practice standards, such as the Equator Principles, World Bank Standards and International Finance Corporation (IFC) Principles and Performance Standards. The activities undertaken as part of the study comprised the following:

- Defining the site-specific, local and regional study areas;
- Data collection, including a desktop review, investigative site visit, interviews with key informants, and a review of information from other specialist studies and the public participation process;
- The compilation of a baseline profile, including information on demographics, education, skills levels, employment, local and regional economic conditions, infrastructure and service delivery, health and gender-related issues, community needs and challenges and spatial development. Information pertaining to other projects operating in the local municipal area is also presented, as are the prevalent concerns regarding and attitudes towards the proposed project;
- Assessment of impacts on the basis of issues identified through specialist opinion, interviews with key informants and the public participation process. Identified impacts were categorised in terms of the project phase in which it is most likely to originate, namely the construction, operational or decommissioning phases;
- Rating of impacts in terms of their anticipated duration, extent, intensity and probability. Duration, extent and intensity ratings were combined into a measure of an impact's expected consequence. Consequence ratings, in turn, were combined with probability ratings to give a measure of an impact's overall significance;
- Identification of appropriate mitigation measures to avoid or ameliorate negative social impacts and to enhance positive ones. The rating procedure described above was then repeated to assess the expected consequence, probability and significance of each impact after mitigation. This post-mitigation rating gives an indication of the significance of residual impacts, while the difference between an impact's pre-and post-mitigation ratings therefore represents the degree to which the recommended mitigation measures are expected to be effective in reducing or ameliorating that impact; and
- Formulating recommendations regarding the identified mitigation and enhancement measures, as well as other general recommendations that may aid the successful implementation of the proposed project.

In order to gain an understanding of the socio-economic conditions of the regional and local study areas, Myezo reviewed the following documents:

- ZF Mgcawu District Municipality Integrated Development Plan (IDP) 2017 -2021
- ZF Mgcawu District Municipality Profile and Analysis: District Development Model. 2020.
- Tsantsabane Local Municipality Integrated Development Plan (IDP) 2020 – 2021

- Tsantsabane Local Municipality Spatial Development Framework 2015 – 2020
- Statistics South Africa (Stats SA) Community Survey 2016
- Statistics South Africa (Stats SA) Census 2011

No primary data was collected in preparation of this SIA. The methodology used in the assessment of the socio-economic impacts is detailed below in Section 6.

5. Social Baseline Data

The section to follow presents a brief overview of the socio-economic conditions within the regional and local study areas.

5.1 Demographic Profile

In 2011, the population of ZFMDM was 236 783 and in a community survey undertaken in 2016 a population of 252 692 was recorded indicating an average growth of 1.48% for a period of 5 years (Stats SA, 2016). In 2011, TLM recorded a total population of 35 093 and 39 345 in 2016 with an average growth of 2.6 %. Assuming the growth rate remains unchanged, the population of TLM can be estimated to be 49 575 in 2021. Figure 5.1-1 (a) shows the population of the regional and local study areas from the 2011 and 2016 data.

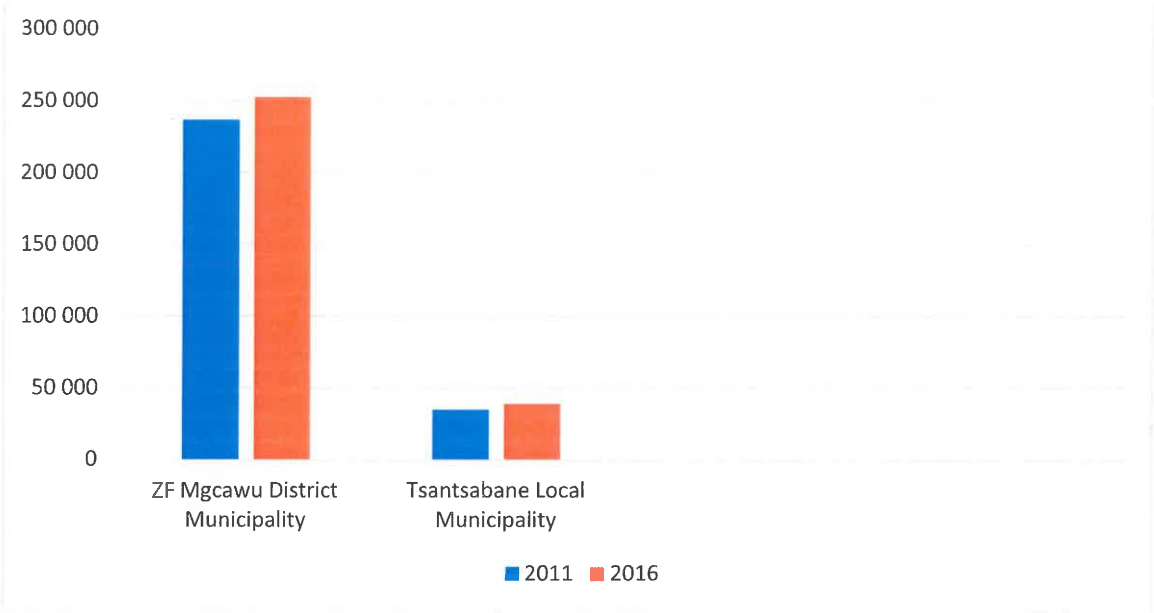


Figure 5.1-1: Population of the regional and local study areas in 2011 and 2016 (Stats SA, 2011 and Stats SA, 2016)

The growth in population might be attributed to the mining activities and manufacturing activities happening in the area.

The results of a census undertaken in 2011, ZFMDM had 61 097 households and a total of 74 091 was recorded in 2016 with an average household size of 3.5 and 3.4 respectively (Stats SA, 2016). TLM had 9 839 households in 2011 and 11 821 in 2016 with an average household size of 3.5 and 3.3 respectively. It is evident that there has been an increase in the number of households both at regional and local level and this resulted in a decline in the average household size.

As indicated on Figure 5.1-2, out of the 35 093-population recorded in 2011, 18 528 (53%) were Black Africans, 13 128 (37%) Coloureds, 2 933 (9%) Whites, 224 (0.5%) Asians and 224 (0.5%) others.

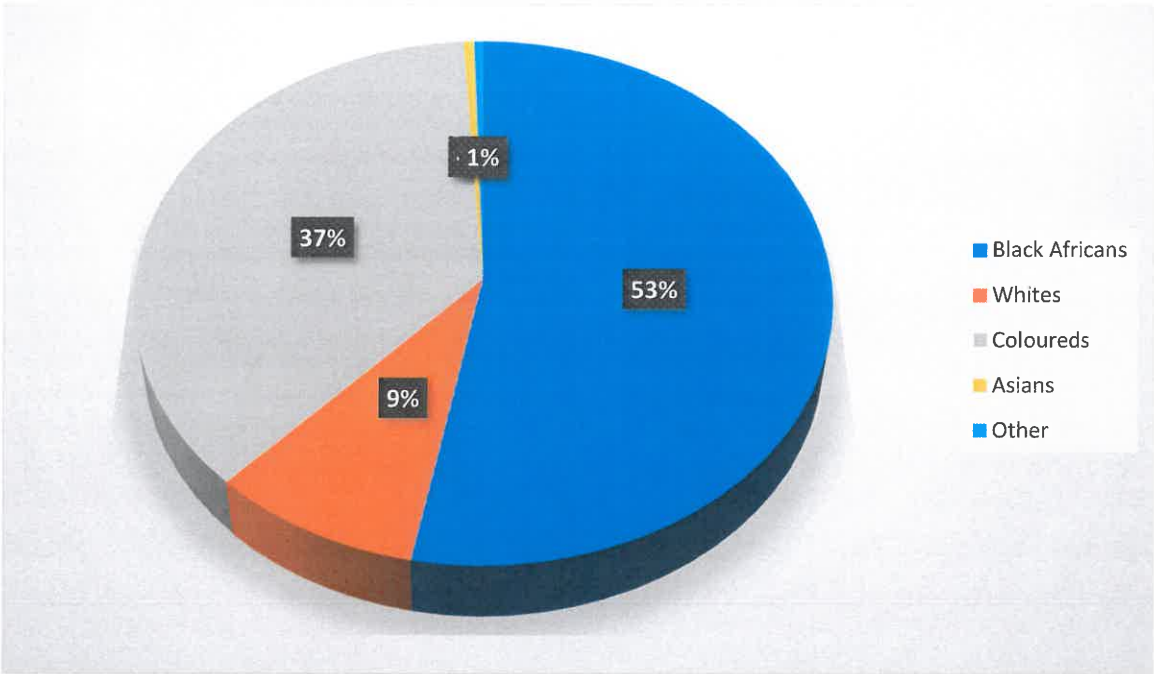
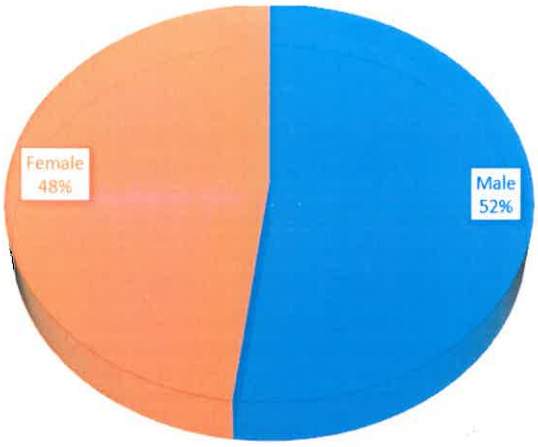


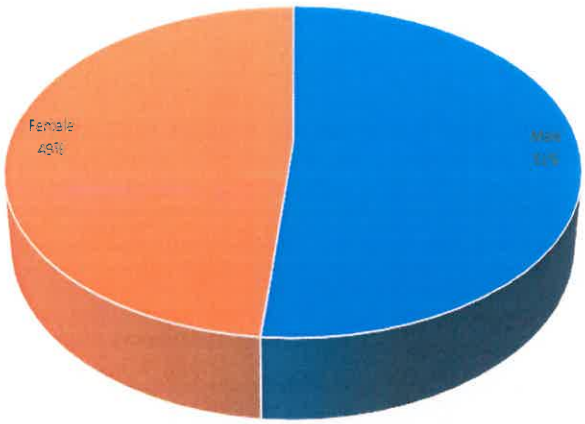
Figure 5.1-2: Tsantsabane Racial Profile (Source: Tsantsabane Integrated Development Plan 2020-2021)

In terms of gender and sex ratio the 2011 Census show that the male population is higher than female population with 52% males and 48% females for TLM respectively. ZCFDM recorded 52.5% males and 47.5 females in 2016 and 51.5% males and 48.5% females in 2011. Figure 5.1-3 summarises male to female rations at reginal and local levels. The dominance of male population at regional and local levels might be attributed to the type of economic activities taking place in the area which are favourable to males than females since the mining, agriculture and manufacturing industries tend to attract more males than females.

Figure 5.1-4 indicate that the population of TLM is dominated by young people and also characterised by a strong economically active population (20 - 39 years). Furthermore, the pyramid indicate that approximately 31% of the population is between the ages of 0 – 14 years and 33% is between 15 and 34 years and 29% between the 35 – 65 age group and only 5% is above 66 years of age. Large numbers in the 0–14-year age group can be attributed to a high population of women in their childbearing age.



Tsantsabane Local Municipality



ZF Mcgawu District Municipality

Figure 5.1-3 : Ratio of males to females in the regional and local study areas (Source: Stats SA, 2011)

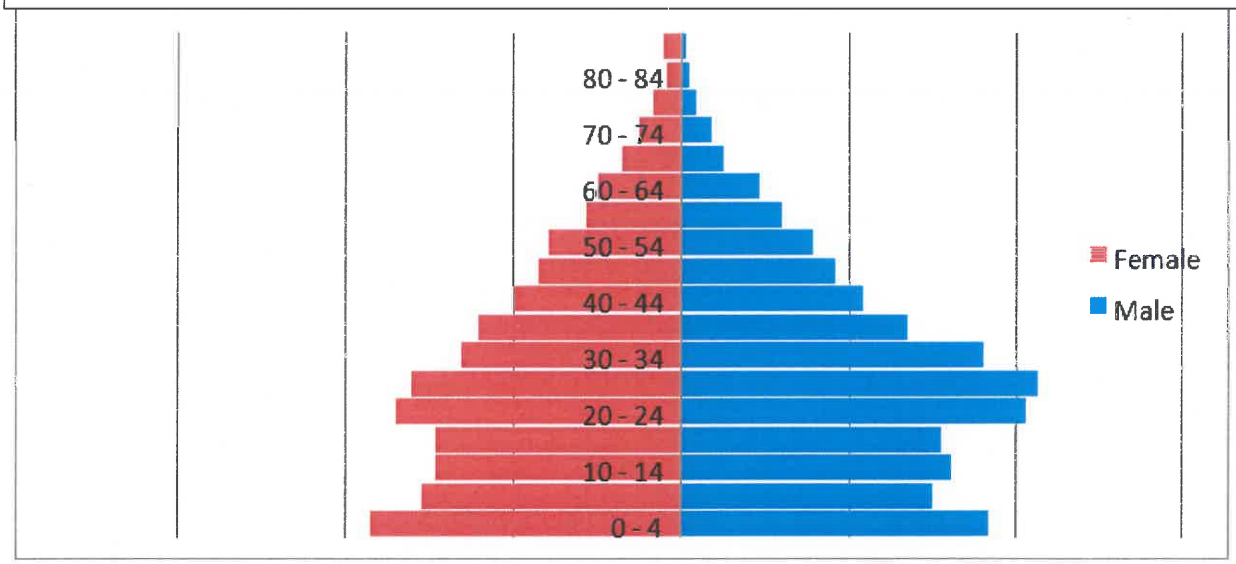


Figure 5.1-4: TLM Population Pyramid (Source: Tsantsabane Local Municipality IDP 2020-2021).

The existence of women in their childbearing age and high child population might indicate that most women are not economically active, thus, woman empowerment should be considered as a crucial point in any form of development to be undertaken in the area.

5.2 Educational profile

It is imperative to understand the level of education of people in a particular area, as one is then able to have a clear understanding on how many have the potential to enter the labour market. From the 2011 census, the statistics indicate males with some secondary education, completed Grade 12 and those with higher education are higher women than their male counterparts (Tsantsabane Local Municipality IDP 2020-2021). In addition, despite a high number of students enrolling for primary school a very low number of students complete grade 12. This might reduce the probability for employment among the economically active

population. Furthermore, only a few have attained a higher education certificate. Figure 5.2-1 summarises the education levels by gender within TLM.

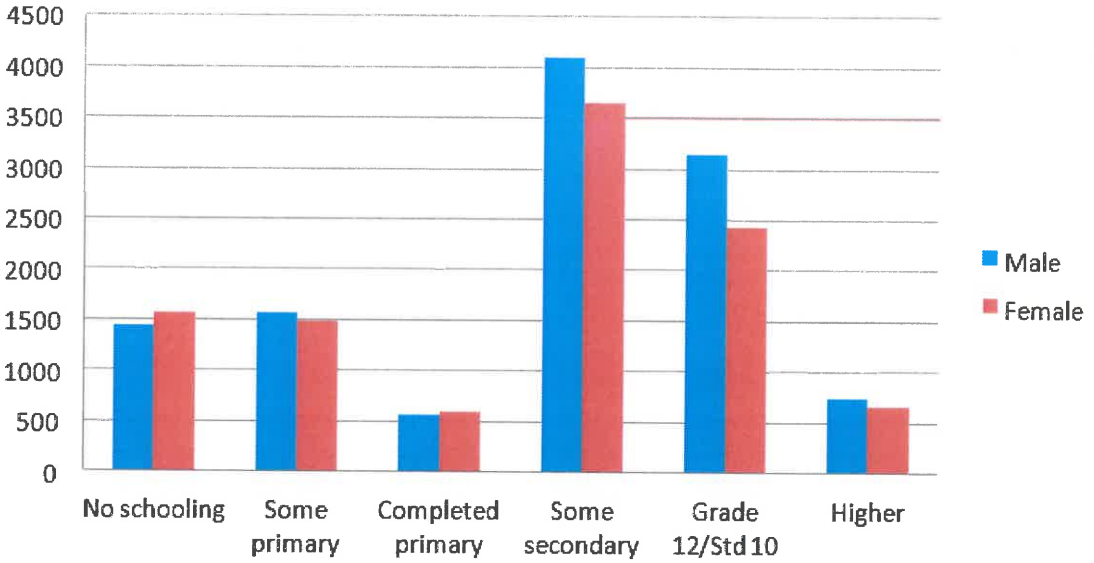


Figure 5.2-1: Educational Levels by Gender in TLM (Tsantsabane Local Municipality IDP 2020-2021).

TLM has a total of eight (8) primary schools and three (3) secondary schools. Table 5.2-1 present a list of the schools that are found within the TLM.

Table 5.2-1: Schools in TLM

Town/ Settlement	Facility	Number of Schools
Postmasburg	Primary School	4
	High School	3
Groenwater	Primary School	1
Jenn-Haven	Primary School	1
Skeyfontein	Primary School	1
Beeshoek	Primary School	1

In terms of employment status, 2011 census statistics indicate that there has been an increase in employment, increasing by 69% from 2001 statistics (Tsantsabane Local Municipality IDP 2020-2020). However, figures also indicate that more males are employed compared to females and males have a low unemployment figures compared to females. Thus, it is crucial to ensure that issues of skills transfer, employment opportunities, empowerment and bursaries also target females and the youth.

5.3 Health

There are several health facilities within the regional study area providing healthcare services to the residents of ZFMDM. A List of Hospitals within the district are listed on Table 5.3-1. In addition, ZFMDM only has two (2) community health centres and a total of 52 clinics. TLM has three (3) fixed clinics, one (1) hospital and four (4) mobile clinics servicing the rural areas (Tsantsabane Spatial Development Framework, 2015 – 2020).

Table 5.3-1: List of Hospitals in ZFMDM

Hospital	Local Municipality
Kakamas	Kai! Garib
Keimoes	Kai! Garib
Upington	Dawid
Gordonia	Kruiper
Postmasburg	Tsantsabane

5.4 Economic Activities and Incomes

ZFMDM contributed about 30% to the Northern Cape gross development product in 2016 and 24.52% in 2018 (ZF Mgcawu District Profile, 2019). In 2018, the mining sector was the largest economic contributor within ZFMDM accounting for R 4.64 billion or 21.3% of the total gross value added in the district municipality's economy and the second contributor was the community services sector at 21.1% followed by the finance sector with 13.5%. Agriculture is also amongst the major economic contributors in the ZFMDM contributing 12% to total gross value added in 2017. Major economic sectors within ZFMDM are presented on Figure 5.4-1. The sector that contributes the least to the economy of ZFMDM is the electricity sector with a contribution of R 735 million or 3.38% of the total gross value added. ZFMDM economic growth rate is expected to be at an average of -1.20% from 2019 to 2023.

Mining is the major economic activity within TLM contributing 55% of the gross development product. In 2011, more than 26% of the population was unemployed and over 30% of the economically active population earned no income.

The agricultural sector has been a positive contributor to the country's GDP growth with an increase of 28.6%, becoming the strongest performer (15.1%) in the second quarter of 2020 despite the unpleasant conditions of COVID-19 pandemic and agriculture continued to increase at a rate of 18,5% in the quarter of 2020 (National Agricultural Marketing Council (NAMC), 2020). In addition, the NAMC indicate that the agricultural sector is expected to witness a positive growth in the future. This indicate that the sector is of crucial importance and considering that the proposed project will be undertaken within farmlands, contribution of the agricultural sector should be considered.

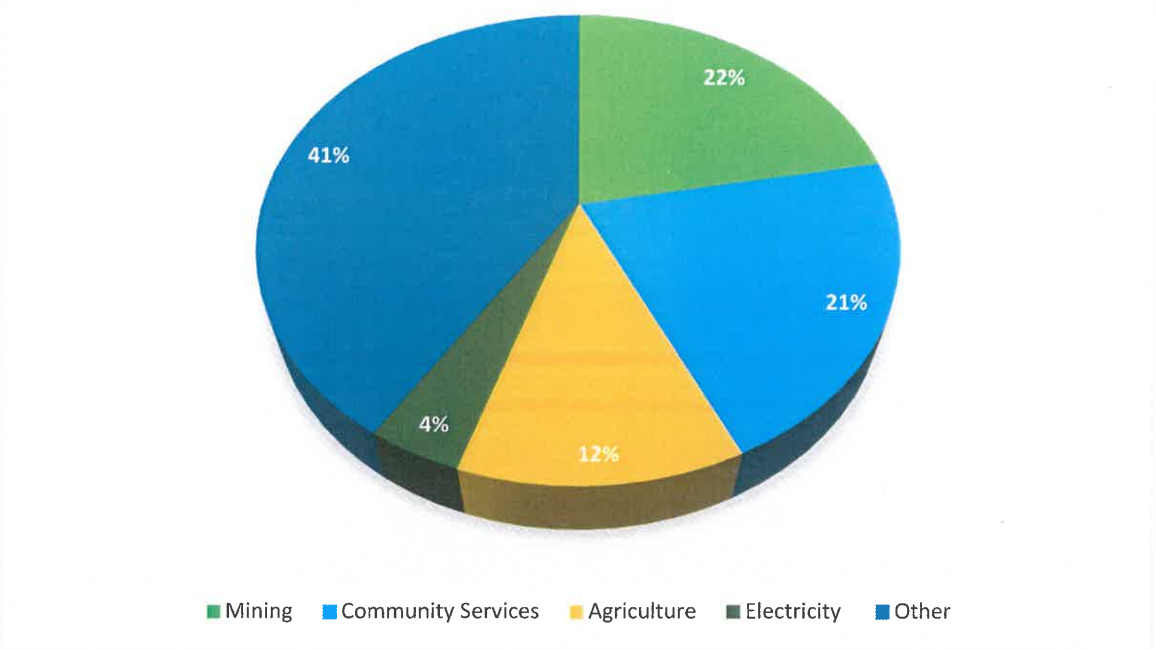


Figure 5.4-1: Major Economic Sectors in ZFMDM (Source: ZF Mgcawu District Profile, 2019).

5.5 Cultural Heritage

In the late 1820's a mass-movement of Dutch speaking people in the Cape Colony started advancing into the northern areas. This was due to feelings of mounting dissatisfaction caused by economical and other circumstances under British rule in the Cape. This movement later became known as the Great Trek. This migration resulted in a massive increase in the extent of that proportion of modern South Africa dominated by people of European descent (Ross 2002: 39).

As can be expected, the movement of whites into the Northern provinces would have a significant impact on the black people who populated the land. The Northern Cape is the largest province in South Africa but has the least number of inhabitants and the and is mostly desert, including Namaqualand, great parts of the Karoo and parts of the Kalahari Desert. These deserts were the home of many Khoikhoi and San groups, and there are still examples of San Rock Art (South African History, 2011).

Postmasburg was originally the site of a mission station named Sibilhong, founded by the London Missionary Society. Later it was named Blinkklip by the former tribes and for many years it acted as an outpost for the Griqua people and as the church centre for the European farming community (Tsantsabane Local Municipality, 2018). However, archaeological findings indicate that Khoisan mined specularite there from at least AD 700. The town was eventually proclaimed on 6 June 1892 and was renamed Postmasburg in honour of Reverend Dirk Postma, the first minister of the Reformed Church. The discovery of diamonds in 1918, followed by manganese assisted in the growth of this small village.

6. Potential Socio-economic Impacts

The proposed activity will have socio-economic impacts to the surrounding areas due to activities which might trigger change to the environment. These can be positive or negative effects.

The impact assessment was undertaken using a matrix selection process, the most commonly used methodology, for determining the significance of potential environmental impacts/risks. This methodology incorporates two aspects for assessing the potential significance of impacts, namely occurrence and severity, which are further sub-divided as indicated on Table 6.1-1

Table 6.1-1: Impact assessment factors

Occurrence		Severity	
Probability of occurrence	Duration of occurrence	Scale/extent of impact	Magnitude of impact

To assess these factors for each impact, the following four ranking scales are used as presented on Table 6.1-2.

Table 6.1-2: Impact assessment scoring methodology

Value	Description
Magnitude	
10	Very high/unknown
8	High
6	Moderate
4	Low
2	Minor
Duration	
5	Permanent (Impact continues post-closure)
4	Long term (Impact ceases after decommissioning and closure)
3	Medium-term (Impact ceases after the operational phase)
2	Short-term (Impact ceases after the construction phase)
1	Immediate
Scale	
5	International

4	National
3	Regional
2	Local
Value	**Description**
1	Site Only
0	None
Probability	
5	Definite/Unknown (impact will definitely occur)
4	Highly Probable (most likely, 60% to 90% chance)
3	Medium Probability (40% to 60% chance)
2	Low Probability (5% to 40% chance)
1	Improbable (less than 5% chance)
0	None

Significance Points= (Magnitude + Duration + Scale) x Probability.

Table 6.1-3: Significance of impact based on point allocation

Points	Significance	Description
SP>60	High socio-economic significance	An impact which could influence the decision about whether or not to proceed with the project regardless of any possible mitigation.
SP 30 - 60	Moderate socio-economic significance	An impact or benefit which is sufficiently important to require management, and which could have an influence on the decision unless it is mitigated.
SP<30	Low socio-economic significance	Impacts with little real effect and which will not have an influence on or require modification of the project design.
+	Positive impact	An impact that is likely to result in positive consequences/effects.

For the methodology outlined above, the following definitions were used:

- **Magnitude** is a measure of the degree of change in a measurement or analysis (e.g., the area of pasture, or the concentration of a metal in water compared to the water quality guideline value for the metal), and is classified as none/negligible, low, moderate or high.
- **Scale/Geographic extent** refers to the area that could be affected by the impact and is classified as site, local, regional, national, or international.
- **Duration** refers to the length of time over which an environmental impact may occur: i.e. immediate/transient, short-term, medium term, long-term, or permanent.
- **Probability** of occurrence is a description of the probability of the impact actually occurring as improbable (less than 5% chance), low probability (5% to 40% chance), medium probability (40% to 60% chance), highly probable (most likely, 60% to 90% chance) or definite (impact will definitely occur).

A summary of potential significant socio-economic impacts are presented on Table 6.1-4.

Table 6.1-4: Summary of Potential Significant Socio-economic Impacts

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
PLANNING AND SETUP PHASE										
Selection of site for contractor camps	There is possibility of conflicts with locals when planning to work close to community buildings. Drill workers may encroach into homesteads and undermining privacy.	Magnitude: Duration: Scale:	High Short Local	Medium	High	• Since there will be work close other properties, owners have to be informed and consulted. • Drill workers will not be allowed to be within 50 metres of adjacent properties without approval from the supervisor.	Magnitude: Duration: Scale:	Low Short Local	Medium	Low

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
Access Roads	Since the proposed project area is close to communities, access roads may tamper with and damage existing infrastructure and community properties.	Magnitude:	Very High	Highly Probable	High	• The local community and local municipality must be informed of the project before any work is done. They must also be involved in the planning, selection and construction of the access road.	Magnitude:	Moderate	Medium	Moderate
Selection of site for contractor camps	Water resources conflicts can arise when exploration activities start to use scarce or sensitive resources being used by the community.	Magnitude:	Moderate	Medium	Moderate	• The local municipality and ward councillors will be consulted before choosing a water source for drilling purposes. • If a an existing water source is to be used, an agreed payment should be done.	Magnitude:	Low	Low	Low
		Duration:	Short				Duration:	Short		
		Scale:	Local				Scale:	Local		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
Construction Phase										
Construction activities.	Creation of a number of local employment opportunities.	Magnitude:	High	Low	Low	• Recruitment to be coordinated through the DoL. • Update and optimal use of the skills database. • Promotion of female and youth employment • Effective implementation of training and skills development initiatives. • Monitoring subcontractors in terms of local employment targets. • Labour intensive construction methods should be promoted	Magnitude:	High	Medium	Moderate
		Duration:	Short				Duration:	Short		
		Scale:	Regional				Scale:	Regional		
Construction activities.	Investment into the local economy through purchase of goods and services.	Magnitude:	High	Low	Low	• Develop capacity of local SMMEs. • Monitor compliance with procurement policy and give preference first to capable	Magnitude:	High	Medium	Moderate
		Duration:	Short				Duration:	Short		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
		Scale:	National			• subcontractors located in the local municipal area. • Establish linkages with other mining proponents in the area involved in skills and SMME development. • Align skills development to build capacity of SMMEs. • Utilise electronic business database to identify local SMMEs. • Utilise the accommodation database to identify local accommodation options.	Scale:	National		
Site clearance activities.	Exposure to dust and fine particulates with	Magnitude:	High	Medium	Moderate	• Basolakhe will ensure that a dust monitoring plan is put in place and is agreed with Sishen Iron Ore Company.	Magnitude:	Moderate	Medium	Low
		Duration:	Short				Duration:	Short		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
	the stripping of vegetation cover.	Scale:	Local				Scale:	Local		
Construction activities.	Exposure to noise from construction activities.	Magnitude:	Moderate	Definite	Moderate		Magnitude:	Minor	Low	Low
		Duration:	Short				Duration:	Short		
		Extent:	Local				Scale:	Local		
Access Roads	Since the proposed project area is close to communities, access roads may tamper with and damage existing infrastructure and community properties.	Magnitude:	Very High	Highly Probable	High	• Basolakhe must ensure that issue of road access is discussed with Sishen Iron Ore Company upon issuance of a prospecting right. • The local community and local municipality must be informed of the project before any work is done. They must also be involved in the planning, selection and construction of the access road.	Magnitude:	Moderate	Medium	Moderate
		Duration:	Long				Duration:	Short		
		Extent:	Local				Extent:	Local		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
	Conflicts with local communities by cutting down trees for firewood.	Magnitude:	Very high	Highly probable	High	• No trees or shrubs will be felled or damaged for the purpose of obtaining firewood, unless agreed to by the landowner/tenant.	Magnitude:	Moderate	Low	Low
		Duration:	Long				Duration:	Long		
		Scale:	Local				Scale:	Local		
Movement of drill rig workers	There is risk of veld fires which can damage properties and result in injuries or loss of life.	Magnitude:	Very high	Highly Probable	High	Fires will only be allowed in facilities or equipment specially constructed for this purpose. If required by applicable legislation, a firebreak will be cleared around the perimeter of the camp and office sites.	Magnitude:	Moderate	Medium	Moderate
		Duration:	Long				Duration:	Long		
		Scale:	Regional				Scale:	Regional		
Construction vehicles.	Areas of cultural and religious importance may be disturbed by	Magnitude:	Low	Definite	Low	Even though no sites of significance were identified, local traditional leaders will be consulted and informed of the	Magnitude:	Low	Low	Low
		Duration:	Short				Duration:	Short		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
	movement of traffic and people to and from the exploration sites	Scale:	Local			project as a precautionary step.	Scale:	Local		
	Increase the risk of an accident with pedestrian and/or another vehicle, resulting in a serious injury or death.	Magnitude:	Moderate	Moderate	Moderate	• Plant maintenance • Rigorous health and safety programmes	Magnitude:	Moderate	Low	Low
		Duration:	Immediate				Duration:	Immediate		
		Scale:	Local				Scale:	Local		
	Drill rigs normally operate around the clock and make use of lighting for security and making work easier. Photo-pollution can result from the lighting.	Magnitude:	Moderate	Medium	Moderate	• The use of the drill rig will be limited to daytime operational hours. Lighting used will be within the workspace and outside of the drill camp. • Low frequency lighting will be used.	Magnitude:	Low	Low	Low
		Duration:	Medium				Duration:	Medium		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
	Light and noise can disturb the local community.	Scale:	Local			• Lighting and noise disturbance or any other form of disturbance that may have an effect on the landowner / tenant / persons lawfully living in the vicinity shall be kept to a minimum.	Scale:	Local		
Drilling	Drill rigs are made up of several heavy equipment. Noise is produced by the equipment during drilling activities.	Magnitude:	Moderate	Medium	Moderate	• Drill rigs will make use of silencers. Machinery will be well serviced therefore will make less noise.	Magnitude:	Moderate	Low	Low
		Duration:	Medium				Duration:	Medium		
		Scale:	Local				Scale:	Local		
Workers from outside the area.	Social tension, and possibly violence.	Magnitude:	High	Highly probable	Moderate	• Clearly communicated local recruitment policy. • Use of community structures to identify local labour pool. • Ensure thorough community consultation.	Magnitude:	High	Low	Low
		Duration:	Short				Duration:	Short		
		Scale:	Regional				Scale:	Regional		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
						• Influx management				
Operational Phase										
Operational activities	Creation of a number of local employment opportunities.	Magnitude:	Low	Low	Low	• As for construction phase. • Intensifying efforts in the Prospecting works programme to develop scarce skills.	Magnitude:	Low	Medium	Moderate
		Duration:	Medium				Duration:	Medium		
		Scale:	Regional				Scale:	Regional		
	Investment into the local economy through purchase of goods and services.	Magnitude:	Low	Low	Low	• Measures recommended to maximise benefits from local employment, skills and economic development	Magnitude:	Low	Medium	Moderate
		Duration:	Medium				Duration:	Medium		
		Scale:	Regional				Scale:	Regional		
Local economic development	Dependency on mine for sustaining local economy	Magnitude	High	Highly probable	Moderate	• Develop turnaround or redeployment strategies. • Publicise to mines in the industry that excess skills are available.	Magnitude:	Low	Highly probable	Moderate
		Duration:	Beyond				Duration:	Medium		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
		Scale:	Local			• Implement actions, suggested by the Department of Mineral Resources and Energy.	Scale:	National		
Operational H&S	Operation-related health and safety impacts	Magnitude:	Moderate	Highly Probable	Moderate	• As for construction phase • Plant maintenance - Rigorous health and safety programme	Magnitude:	Minor	Medium	Low
		Duration:	Long term				Duration:	Medium		
		Scale:	Local				Scale:	Site only		
Skills transfer and development	Skills transfer and development	Magnitude:	Medium	Highly Probable	Moderate	• Early involvement of project beneficiaries • Collaborating with other existing/planned skills development programmes • Skills development programmes should, where possible, focus	Magnitude:	High	High	Moderate
		Duration:	Long				Duration	Long		
		Scale:	Local				Scale:	Local		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
						on scarce skills. • Basolakhe Human Resource and employment policies will optimise skills development.				
Conflict	Conflict/ competition between newcomers and incumbent population	Magnitude: Duration: Scale:	Very high Medium Regional	Highly probable	Moderate	• Clearly communicated local recruitment policy. • Use of community structures to identify local labour pool. • Ensure thorough community consultation. • Influx management.	Magnitude: Duration: Scale:	Low Medium Local	Low	Low
Social pathologies	Increase in spread of communicable diseases and social pathologies	Magnitude: Duration: Scale:	Very high Medium Regional	Highly Probable	High	• Extensive HIV/ AIDS awareness and general health campaign. • Cease construction activities before nightfall. • Clear identification of workers and prevention of loitering	Magnitude: Duration: Scale:	Moderate Medium Regional	Medium	Moderate

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
						• Liaison with police and community policing forum • Influx management.				
Increased pressure on services	Increased pressure on local services/ resources	Magnitude: Duration: Scale:	High Long Regional	Highly Probable	High	• Liaison with municipalities well in advance to ensure needs are met. • Implement Cooperate Social Responsibility (CSR) initiatives. • Ensure that municipalities take into account expected population influx. • Influx management.	Magnitude: Duration: Scale:	Moderate Medium Local	Medium	Moderate
Opposition	Opposition because of perceived negative impacts	Magnitude: Duration:	Very high Permanent	Highly Probable	High	• Communicate commitments regarding LED. • Transparency regarding	Magnitude: Duration:	Moderate Permanent	Medium	Low
		Scale:	Local			• employment practices. • Presentation of EIA findings in clear and understandable manner.	Scale:	Regional		

Name of Activity	Potential Impact	Pre-mitigation				Recommended Mitigation	Post-mitigation			
		Impact Assessment Factors		Impact Probability	Significance		Impact Assessment Factors		Impact Probability	Significance
REHABILITATION										
Rehabilitation of water abstraction sites and water sumps	Water sumps and water abstraction sites must be rehabilitated. Water abstraction sites can result in siltation if not rehabilitated whilst uncovered water sumps can pose a risk to humans and livestock.	Magnitude:	High	Medium	Medium	• Pits will be filled after exploration has been finished since people and animals may fall resulting in injuries or loss of life or livestock. • Areas containing French drains will be compacted and covered with a final layer of topsoil to a height of 10cm above the surrounding ground surface.	Magnitude:	Low	Low	Low
		Duration:	Long				Duration:	Long		
		Scale:	Regional				Scale:	Local		
Reductio in Agricultural Production/ yields	Potential loss of agricultural productivity	Magnitude:	High	High	High	• Ensure that soil chemistry alterations as a result of prospecting activities is rehabilitated. • Any possible toxicity to ground water must be corrected. S	Magnitude:	Low	Medium	Medium
		Duration:	Long				Duration:	Medium		
		Scale:	Regional				Scale:	Local		

7. Data Gaps and Assessment Shortcomings

The following are the data gaps and assesmement shortcomings of this study:

- The absence of up-to-date census data on the local population. The last comprehensive census was undertaken in 2011, the next one is only scheduled for 2021, and the last community survey was undertaken in 2016. While census data used is not up-to date, it does provide sufficient detail to establish a baseline that is relatively accurate in terms of orders of magnitude and allows for the establishment of trends; and
- The absence of a comprehensive, up-to-date database of economic data for TLM, services data and places of worship. While not every facility or site or economic data may have been accounted for, the data does provide sufficient detail to determine quantity, in terms of order of magnitude, and the relative distribution of the facilities and/or sites within the regional study area.

8. Conclusions and Recommendations

The results of the study indicate that the recommended mitigation measures are expected to reduce the significance of negative impacts to acceptable levels, while positive impacts will on average be significantly enhanced to maximise benefits to surrounding communities.

The main conclusion arising from the assessment of cumulative impacts is that the most significant cumulative impacts are expected to arise because of the combined effects of the proposed project and other, existing and planned mining operations in the area. These cumulative impacts relate to the large-scale rather than site-specific impacts associated with a concentration of mining projects namely, their tendency to dominate the local economy, thereby causing the local economy to become increasingly dependent on mines that inevitably have a finite lifespan, and their tendency to dominate the landscape and irrevocably alter an area's sense of place.

The study also indicates that the establishment of linkages between Basolakhe and other institutions involved in local and regional economic development and social upliftment will serve to maximise the benefits of the project's contribution to the welfare of local communities. Examples of initiatives that offer opportunities for linkages and synergy include municipal Local Economic Development (LED) projects, initiatives by other mining companies in the area, and activities by civil society and non-governmental organisations. At the time of writing this report comprehensive information regarding the initiatives of these institutions in the vicinity of the local study area were not available. It is suggested that Basolakhe should contact the CSI, LED and socio-economic development departments of these institutions to gauge whether they can align or synergize with any of their efforts to collaborate in some of the development initiatives planned for the area.

Throughout the SIA process, a number of risks that warrant particular attention and close monitoring and management by the proponent when implementing the proposed project were identified. These risks include:

- Community expectations regarding employment and CSI projects;
- Social unrest and community opposition;
- Failure to acquire a social licence to operate; and
- Risks associate with physical and economic displacement.

9. References

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EMPr Appendices

Appendix C1-1: Composite Map

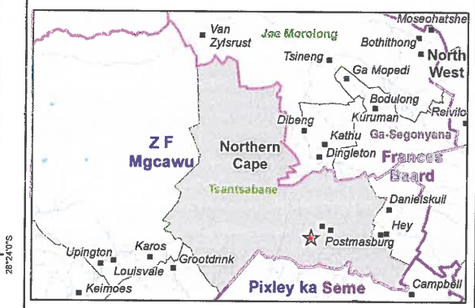
FARM NAME	21 DIGIT CODE
FARM No. 486	C03100000000048600000

BASOLAKHE INVESTMENTS (PTY) LTD

PROSPECTING RIGHT AND ENVIRONMENTAL AUTHORISATION APPLICATION OVER FARM 486

Legend

- Primary road
- Secondary road
- Basolakhe Mine Boundary
- Ward Boundary
- Farm Boundaries
- District Boundaries
- Local Boundaries



CLIENT:

Date: 2/16/2021	CHECKED: DP	PROJECT: 000077
DRAWN: N.Didiza	APPROVED: DP	SCALE: 1:50,000

DRAWING: Local Setting with Farms and 21 digit codes

REV: 0

MYEZO ENVIRONMENTAL MANAGEMENT SERVICES [Pty] Ltd
Environmental Stewardship

Projection: Geographic, Datum: WGS84
Source: 1:50 000 Topo Map
Inset Map: Municipal Dermacation Board

SIZE: A2

0 1.25 2.5 5 7.5 10 Kilometres